AEROSOL AGE

THE MAGAZINE OF PRESSURE PACKAGING

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IS
E:

- Aerosol Technical Clinics
- Aerosol Supermarket Promotion
- The IKI Story
- Aerosols at Hardware Show
- Poet-Grady Test Criticized
- Market Trends in Britain

NOVEMBER, 1959

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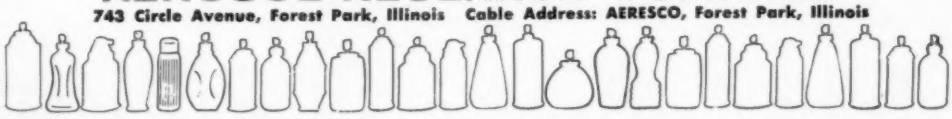

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THIS MONTH'S COVER

To illustrate that demonstration selling can stimulate sales of aerosol products, the CSMA Aerosol Division, through its Publicity Committee, last month sponsored a demonstration in the Succasunna, N. J., store of Rickel Brothers, Inc., chain-store merchandisers of hardware and household supplies. Demonstrator Rose Schopperth is shown illustrating how a pressurized car wax operates. Further photographs and story begin on page 23.

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AEROSOL AGE

The magazine of pressure packaging

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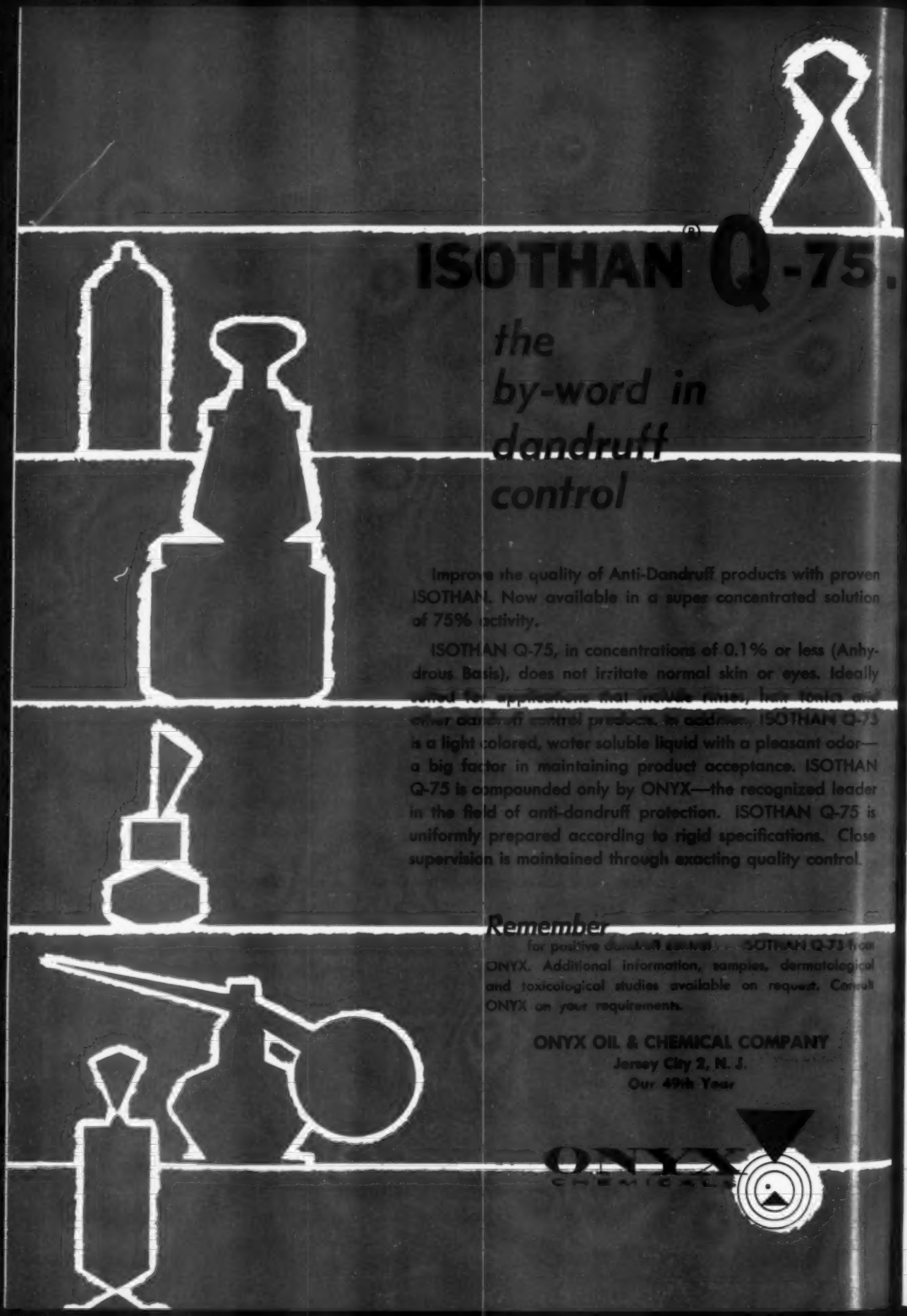

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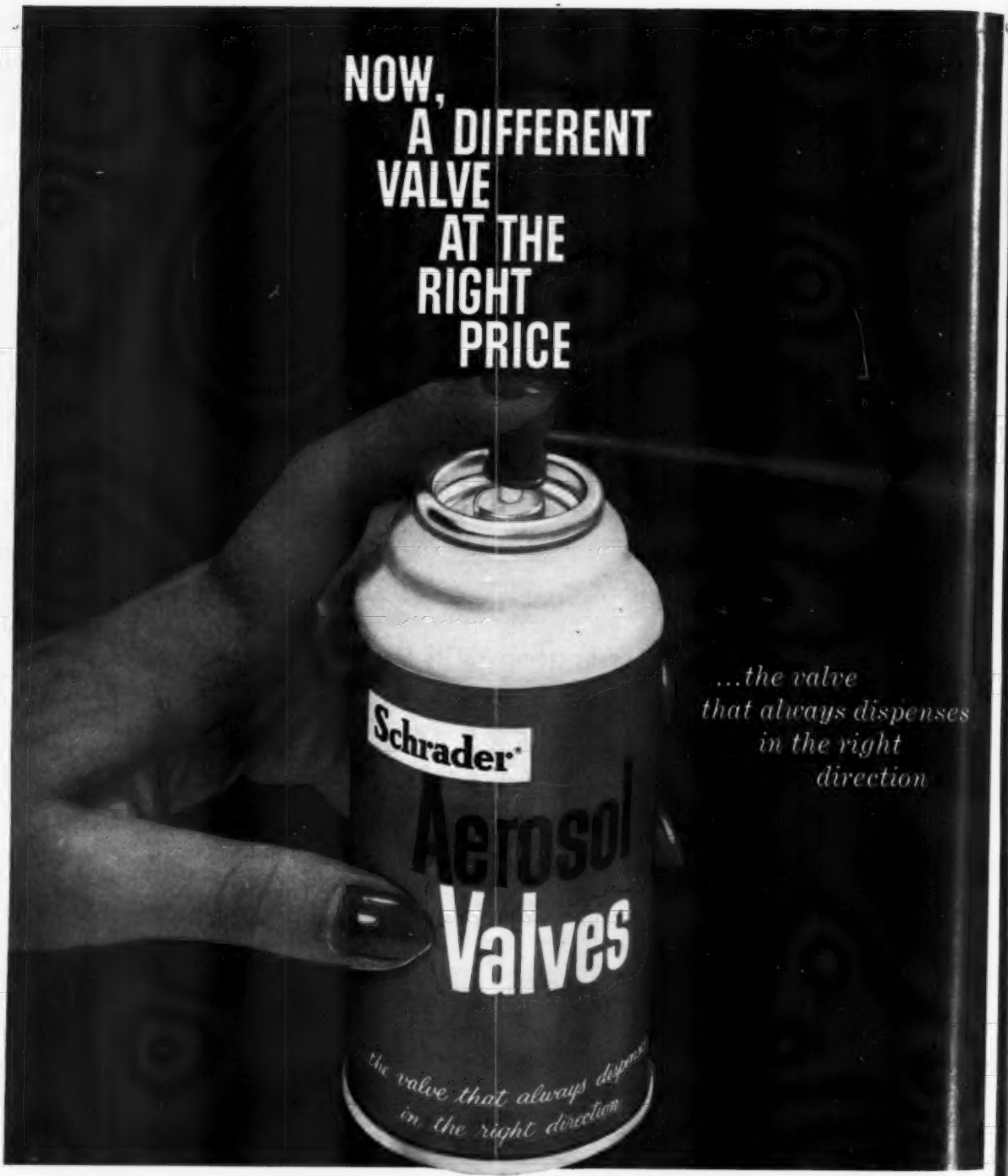

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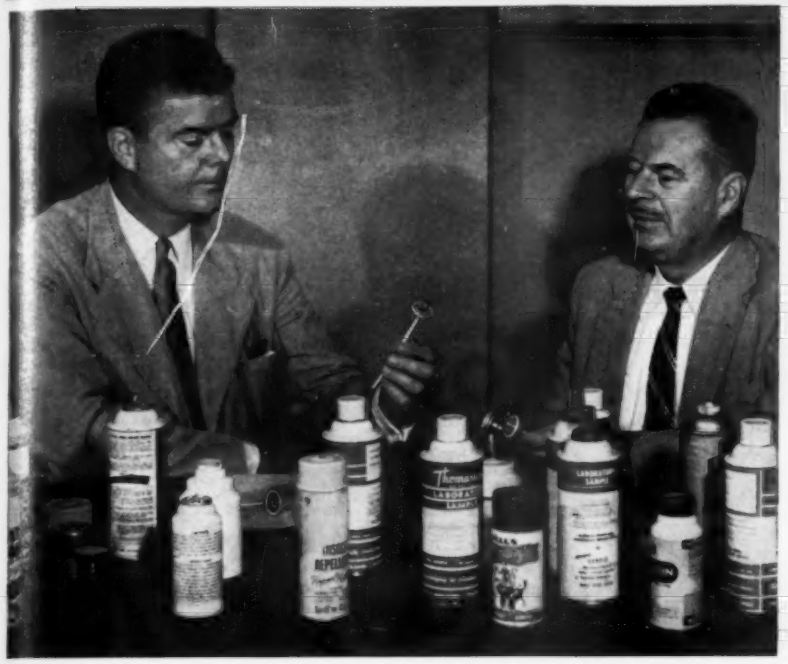
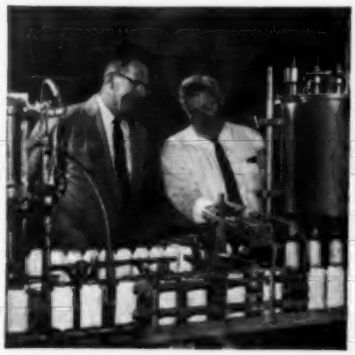
The contract packager had the answer... *a success story from the ISOTRON file*



STYMIED by unfamiliar problems in connection with marketing his line of products in aerosol packages, the marketer finds the technical assistance he needs in the office of James Bampton (left above), president of Thomasson of Pennsylvania, Inc., of Norristown, Pa., one of the nation's leading aerosol contract packagers.

In this laboratory at Thomasson, technologists work out formula adjustments in the marketer's product to adapt it for aerosol packaging.



The marketer and the production manager watch the first run of the new aerosol-packaged product on one of Thomasson's high-speed loading lines.

Pay-off of Thomasson's special knowledge comes for the marketer's product at store displays like this. Aerosol packaging brings new volume and profits.

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INDUSTRY CALENDAR

Canadian Manufacturers of Chemical Specialties, second annual meeting, Royal York Hotel, Toronto, Nov. 2-4.

Packaging Institute, Annual National Packaging Forum, Hotel Statler, New York.....Nov. 16-18

Packaging Machinery Manufacturers Institute, trade show, New York Coliseum, New York. Nov. 17-20

Toilet Goods Association, winter meeting of Scientific Section, Waldorf Astoria Hotel, New York Dec. 1

Society of Cosmetic Chemists, annual meeting, Hotel Commodore, New York.....Dec. 2

Chemical Specialties Manufacturers Association, 46th annual meeting, Mayflower Hotel, Washington, D. C.....Dec. 7-9

from the EDITOR'S MAILBAG

To The Editor:

In your September issue appeared a letter giving the filling rates of three valves including one made by our company. I would like to clarify that statement and add that the valve referred to in the letter from England was our 100 Series which is currently being used in Great Britain and has a much slower filling rate than our currently produced Series 500. The 500 is acknowledged to be the fastest pressure loading valve available.

John M. Wittke
President
OIL EQUIPMENT LABORATORIES, INC.
Elizabeth, N.J.

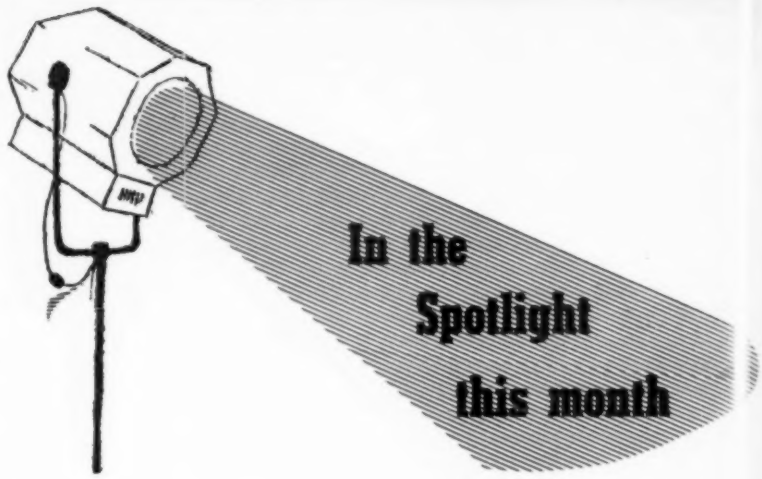
•

To the Editor

Two matters of information appeared in your Sept. issue relating to aluminum aerosol cans. One is in reference to the clinch measurement article by Dr. H. Meuresch. Dr. Meuresch referred to aluminum aerosol cans and stated that the flowed-in gaskets were more difficult to seal on an aluminum can than a steel can. He also stated that the laid-in gasket was still preferred over the flowed-in gasket in regard to valve cups for aluminum aerosol cans.

As distributors for Victor Metal Products Co., manufacturers of one-piece aluminum

(*Continued on Page 62*)



• **Aerosol Technical Clinics Feature Large Attendance, Good Papers** . . . For what was reportedly the best attended aerosol meeting in history, AEROSOL AGE features full coverage, including highlights of each paper together with photographs of speakers, audience, and panels. Five-page story begins on page 18.

• **Aerosol Promotion Held at N. J. Supermarket** . . . A picture story of a special "Aerosol Fair" held at a suburban N. J. supermarket to demonstrate that aerosol sales can be stimulated by use of demonstrations, appears on pages 23 and 24.

• **IKI—Two Years of Safety with All Types of Propellants** . . . A small, thriving Wisconsin custom filler uses a rural location and detailed personnel training to overcome the hazards of handling hydrocarbon propellants. Story on page 25.

• **Aerosols Featured at Hardware Show** . . . Booths devoted exclusively to pressurized packages highlight the National Hardware Show at the N. Y. Coliseum. New products and booths are discussed in a special AEROSOL AGE report on page 26.

• **Peet-Grady Test Called Inadequate by British Researchers** . . . A claim that the long used test for the efficiency of insecticides may need revamping is advanced by two British experts on page 28.

• **U. S. Drug Firms Using Britain as Test Market Area** . . . A special interview with Brian Kirk, British aerosol executive, (on page 32) reveals new information about this growing trend on the part of U. S. pharmaceutical marketers.

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Newman-Green embodies the finest possible parts into an aerosol valve that pressure fills faster, more uniformly. Typical of the many exclusive design features are • No small orifices in metal parts • Delivery tubes swedged on, not slipped over valve body • Spray patterns can be completely varied in seconds by simply changing the spray head • All metering orifices and spray heads are easily accessible for cleaning. These better makin's give your aerosol product a competitive edge—mistier sprays, more dependable operation. When you do business with Newman-Green, you can depend upon personal service that goes beyond the sale. Call your Newman-Green representative today.

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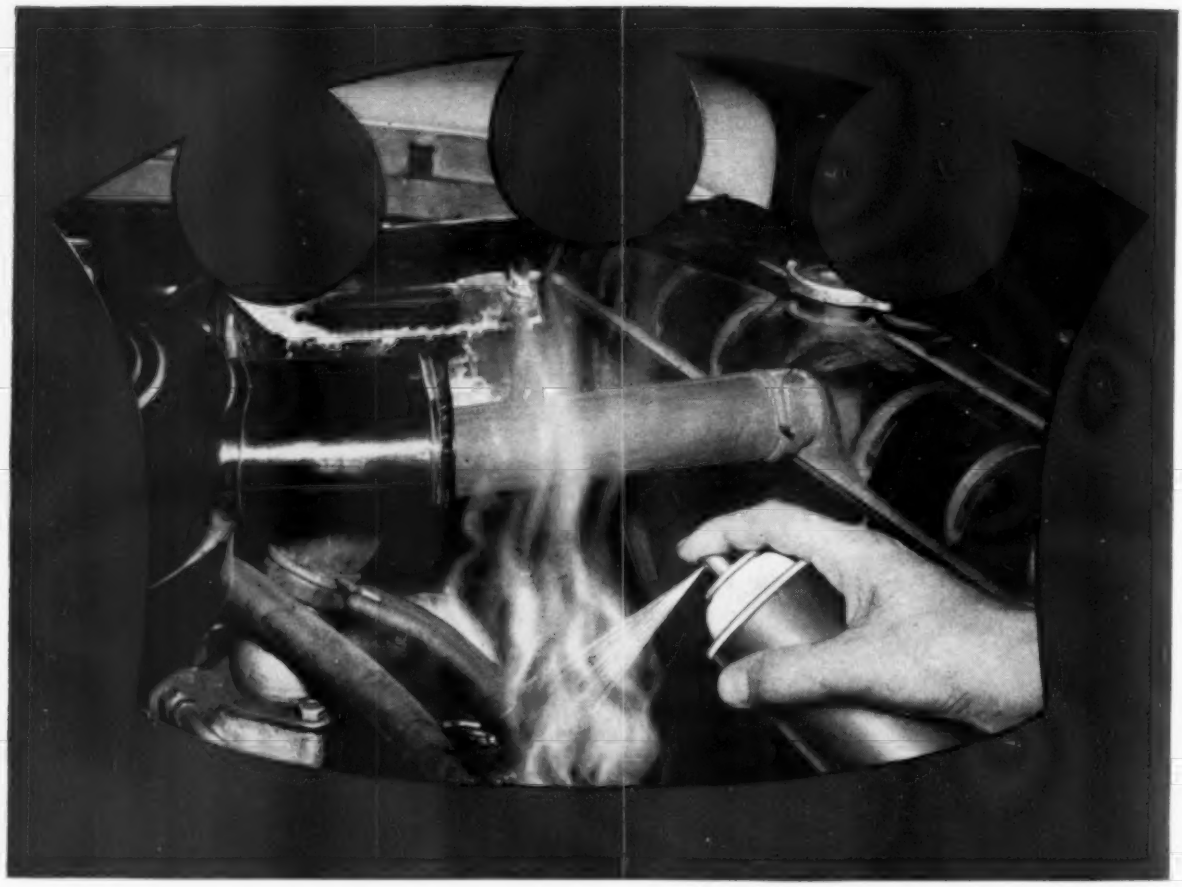

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EDITORIALS

Quality Control Again! . . .

In two very well attended meetings, the Aerosol Technical Clinic project proved itself to be a resounding success. Speakers and arrangements at both the New York and Chicago sessions were of the highest caliber, and the many persons attending from *outside* the Chemical Specialties Manufacturers Association apparently came away well impressed by the association's handling of the whole affair.

Undoubtedly the paper of most import to the future of the aerosol industry was the last formal paper on the New York program. Speaking on "Customer Complaints", John Beecher of Avon Products (a *major* aerosol product marketer in every sense of the word) took the industry to task for increases in price cutting and other forms of "corner cutting" by aerosol fillers and suppliers. In no uncertain terms he warned that relaxation of basic quality control procedures, initiated only to cut filling prices, is a dangerous trend among irresponsible custom fillers.

It was especially significant at this time that such a warning should come from a spokesman of such a highly regarded company. Evidence is growing that heightened competition all along the line is bringing with it a "dog-eat-dog" philosophy among fillers that could drive more of the major marketers to install their own aerosol facilities. The editorial columns of this magazine have long been explicit about our position on this—namely, that irresponsible price cutting can lead only to disaster!

During the past two years, there has been a new development that has further confused an already complicated situation. Several newly founded companies, seeking to carve a niche for themselves among the large-volume customers, have *begun* business with price-cutting—thus leaving themselves no cushion of profit. The financial mortality of such companies has been high indeed, and perhaps it is fittingly so.

As long as this problem has existed in the aerosol industry, the major blame has been placed squarely on the head of the custom filler who cuts prices with no design other than to "raid" the accounts of another filler. However, the marketer who shops around for the cheapest price must also share a major portion of the blame. Each time he switches fillers to make minor savings in filling costs, in effect he goes one step closer to the precipice from where there can be no return. The filler, to meet ridiculously low prices quoted by his rival, cuts his own prices at the expense of quality control, equipment maintenance, or some other important function of his normal plant operation. The marketer (and the next one after him) consequently suffers because, whether or not it is apparent at first, the general quality of his product has been reduced and his repeat sales and company reputation will someday suffer.

One serious aspect of the whole situation is the irresponsibility bred by desperation. Faced by threatened loss of a major account, the filler may resort to cheaper propellant mixtures, the cheapest valve (though far from the best for that particular product), and even more devious shortcuts which may "get-by" in all areas but the crucial one of consumer acceptance.

The time has come for aerosol fillers to develop some ethics, and the longer this is postponed the less chance there will be for custom filling—as we know it today—to survive. ★

Aerosol Technical Clinics...

PRICE wars among fillers, reduced quality control, insufficient testing of new valves, and other practices adopted to cut the cost of filling and component supplying services were attacked sharply by John H. Beacher of Avon Products Co., Suffern, N. Y., at the first of two Aerosol Industry Technical Clinics sponsored by the Chemical Specialties Manufacturers Association in New York and Chicago last month. His warning, voiced before the more than 325 technicians and research people at the New York clinic, was the highpoint of his address on "Handling Customer Complaints."

Of the 20,000 returned aerosol containers examined by his staff over the past two years, Mr. Beacher said, 22% failed to function properly because of valve defect, 3% because of container defect, and 58% because of shortcomings in production techniques, damage in shipment, or misuse of the product by the consumer. He explained that these figures were based on an average, and were not necessarily representative of any one product type. One of Avon's air fresheners, he declared, had fully 77% of its rejects attributable directly to valve malfunction.

Mr. Beacher acknowledged that his company was particularly vulnerable to product returns because of the regularity of visits of its door-to-door saleswomen. "Our sales promotion is based on the fact that our saleswomen call on each customer about once every three weeks, hence the customer tends to wait for the next call to register a complaint about a product which does not function properly. In normal marketing operations (through a supermarket or drug store) the customer would be more apt to simply throw the container away."

"Our company has a line of 25 aerosol items, eight in tinplate (air freshners, hair sprays, shave creams), three spray colognes in stainless steel containers, and 14 different colognes in coated glass bottles. Our own filling operations are carried on at Suffern, N. Y.; Morton Grove, Ill.; and Pasadena, Calif., and we also employ the services of six custom fillers."

Mr. Beacher pointed out that because his company's sales personnel order only when they can actually sell the products, shelf life problems with Avon's goods are generally minimized. He revealed that each of the company's aerosol filling installations is geared to turn out specific products when there is a particular demand for them, and that long-term product storage is thus kept to a minimum.

He read off a dozen or so customer complaints, most of them in letter form. A number complained about valves coming uncrimped from cologne bottles, thus ruining the customer's bureau or dresser top.

Photograph shows audience of more than 325 at the New York Clinic.

. . . . *feature large attendance, good technical papers*

One complaint (from a sales woman) mentioned that a new room deodorant product had killed one customer's pet bird and caused the dog of another to become ill. In another case the husband of a woman customer actually drilled a hole into a coated glass bottle to find the cause of a malfunction!

One remedy for the returns has been an attempt to educate the consumer through special explanatory leaflets, Mr. Beacher explained, and pointed out that in the case of colognes this had proven to be a step in the right direction. Within the confines of Avon's own filling operations, stepped up quality control had solved many of the production shortcomings. At the conclusion of his paper, he charged that short cuts among custom fillers, including the substitution of cheapness for quality, was hurting product acceptance not only with Avon, but with other marketers of quality products.

"THE progress of the aerosol industry during the past 12 years has been one of the most outstanding achievements in all industry," Ralph A. Crane, of the "Freon" Products Division of DuPont told the clinic, Speaking on the "Aerosol Industry History and Markets," Mr. Crane explained that even the highly touted electronics industry doesn't come near the aerosol industry in rate- of-growth.

"Despite the fact that the non-food aerosol market has increased a hundredfold since 1946, the market is still far from saturated, even for the leading product types. For instance, DuPont surveys indicated that in 1958 only 45% of the households in the U. S. had purchased aerosol insecticides, 39% room deodorants, 45% hair sprays, 31% shaving creams, 22% window cleaner, 19% moth proofer, 14% cologne, 8% paint or lacquer, 7% shoe polish. and 4% spot remover.

"Since the consumer obviously *has* been well satisfied with the aerosol product, the market will continue to grow," he declared. He cited shave cream as an example of a product that proves that, if an aerosol meets all the qualifications for success, it can pull up the entire market for that type of product. Hair sprays he mentioned as a product type in aerosol form that has created a whole new marketing category.

Mr. Crane suggested that since the recent success of the aerosol had occurred at the same time as the large-scale installation of television sets in the American home, possibly television advertising has been a major factor in the growth of the aerosol market. Going back to the first success of the aerosol high-pressure insecticide, he pointed out that widespread publicity on the "new wonder bug-killer, DDT", coupled with some initial consumer acceptance enjoyed because of the wartime

success of high-pressure bombs, particularly in the tropics, had given the aerosol its initial push.

Among the major landmarks of the industry he cited 1948 for introduction of the first lacquer, room deodorant, and moth proofer; 1949 for the first hair spray and pigmented enamel; 1950 for the first successful shaving cream; and 1951 for the first successful snow. Each year of the first six of the low-pressure aerosol industry, sales were increased 69%; and during that period 50 additional products were added to the many aerosol categories, he said.

Since that time, Mr. Crane declared, the market has enjoyed a sales rise of about 31% each year, and with the exception of a slight slump in insecticide sales due to an insect population decrease in 1957, nearly every commercially important product type has recorded an increase in sales every year. As products to watch particularly, he suggested pharmaceuticals and foods.

DR. FRANK MINA, of Lodes Aerosol Consultants, Inc., New York, speaking on "Aerosol Principles," outlined the working of each of five different types of aerosol packages: the two-phase, three-phase, foam, powder, and solid stream delivery. He pointed out that the fact that liquefied propellants permit the internal pressure of the container to remain constant throughout the life of the product provides that basis for all but the last one of these five aerosol types.

"In both two and three-phase systems the propellant mixed with the product continues to vaporize until the head space becomes saturated; that is, until a state of kinetic equilibrium is reached. It should be pointed out here," Dr. Mina continued, "that each system will involve a different propellant-product relationship."

Dr. Mina revealed that the three-phase system, which he helped develop, is being increasingly used for window cleaners and other water-base products. One variation of the system, he said, is the substitution of butane-propane type propellants for portions of the more expensive fluorinated hydrocarbon propellants. He said this was made possible by the fact that the hydrocarbon propellants tend to layer out on top of the product, while conventional fluorinated hydrocarbons either layer out under the product or remain mixed with the ingredients.

Turning to the somewhat tricky formulation of powder aerosols, Dr. Mina reported that impaction is still a major problem. However, by bringing the propellant-product ratio to about 90-10%, this can be minimized. Other steps to cut down impaction are selection of a suitable suspending agent, so as to bring the density of the product as close as possible to the density of the propellant in that particular package.

A GOOD general discussion on "Aerosol Propellants," covering the entire range of liquefied types, as well as butane-propane and compressed gases, was the subject of a paper by Lloyd Flanner of the General Chemical Division of Allied Chemical Corp., New York. A major part of the paper was devoted to an explanation of the chemical reasons for the terminology of the various fluorinated hydrocarbon propellants.

One important segment of Mr. Flanner's talk was on the subject of handling stored fluorinated hydrocarbon propellants. He outlined, in terms of cost and apparatus needed, various rigs to move about everything from a 150-pound propellant cylinder to a 2000-pound cylinder and tank trucks. For the 2000-pound

The speakers at the New York clinic were (from top): John H. Beacher (Avon Products), Lloyd Flanner (General Chemical), Walter C. Beard, Jr. (Risdon), D. C. Geary (Union Carbide), Dr. Frank Mina (Lodes Aerosol Consultants), and John Buchanan (Continental Can Co.). All but Mr. Beacher also spoke in Chicago.

Roy Ferry (Kartridg-Pak), Sig Was (Emson Research), John Frangos (Revlon), and A. LaVia (Squibb). Gus Lawrence and Ralph Crane (DuPont), Joseph Tomlinson (General Chemical), and H. W. Hamilton (CSMA). Bob Allen (Wheaton), Anne Lenehan and Regina Savickas (Fluid Chemical), and Ralph Minervino (Metal Fabrications). Bottom: Bard Brown (General Chem.), Mike Malakoff (Warner-Lambert) and Sandy Craige (Peerless Tube). Robert Foresman and Gus Loehr (Thomasson of Pa.) Bill Valentine (Lederle), Bill Brosie (John C. Stalfort) and John Vance (Lederle).

capacity tanks, he explained, the main difficulty lies in the fact that the axis of the dip tubes must be perpendicular to the ground. Since the total weight of the filled tanks is about 3300 pounds, he advised the rigging up of a simple steel cradle dolly to enable the user to turn the tanks at will.

Mr. Flanner also showed photographs of such other propellant handling rigs as the use of an overhead hoist with a lifting hook, and a towmotor or fork lift truck equipped with a special cylinder lifting hook.

TERMINOLOGY, this time of the various types of tinplate and sizes used in container manufacture, was the subject of a good portion of a paper on "Aerosol Containers" by John Buchanan of Continental Can Co., New York. He paid particular attention to corrosion, and went in detail into interior coatings, solder, and general product container relationships.

He listed four basic types of interior coatings, giving brief data on each. These he gave as: oleoresins ("poor chemical resistance, excellent fabrication characteristics"), phenolic ("good chemical resistance, poor flexibility and general fabrication characteristics"), epoxy ("good chemical resistance and good fabrication characteristics"), and vinyl ("poor heat resistance").

The usual solder, he explained is about 2% tin, 98% lead, but where corrosion becomes a major consideration pure tin is sometimes used. "Since solder (especially lead) tends to act as a cathode in electrochemical corrosion, the substitution of tin often removes the major source of trouble." Another factor that can cause trouble is the sealing compound, which Mr. Buchanan suggested should be better left up to the discretion of the can maker.

Other areas in which he suggested the aerosol packager should consult the basic can supplier are general selection of the best container for a particular product type, engineering, plant layout questions, and label and package design through the container companies' art departments.

In the future aerosol containers will tend to be stronger and more attractive, Mr. Buchanan concluded. "There will be more sizes and shapes, increased use of combination (plastic and metal, aluminum and steel, etc.) containers, and more emphasis on merchandising the multi-pack package."

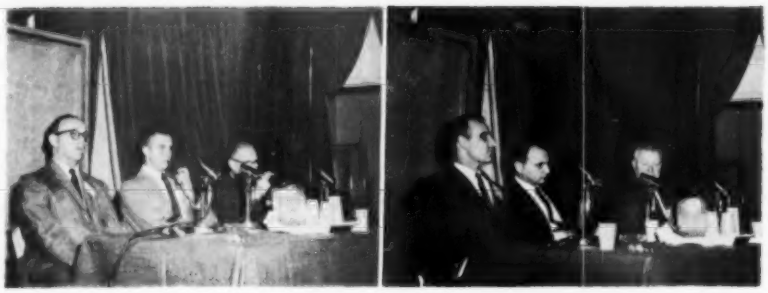
THE character of the product dispensed is determined not only by the formulation, but just as much by valve, Walter C. Beard, Jr., of Risdon Manufacturing Co., Naugatuck, Conn. said in his paper on "Aerosol Valves." He graphically demonstrated this by using different actuator heads to produce different spray patterns from the same can of aerosol shave cream.

He pointed out that the usual spray valve depends on a number of small orifices, plus one expansion chamber, whereas the foam valve depends on a single large orifice and one expansion chamber. As the orifice size is charged, the pattern and consistency of the spray produced is also changed.

To demonstrate the working of a mechanical break-up actuator, Mr. Beard attached a valve to a coke bottle half full of the original beverage. He explained that the CO_2 still in the product provided enough "push" to dispense the beverage in a fine spray.

Mr. Beard's discussion of the operation of the various metering valve concepts was a complete one. He told how the two major principles so far employed are the use of connecting "metering" chambers, and the use of a ball-check device. Turning to the problem of crimping, he reported that the ring-type of gasket is finding increased use for aluminum containers, methyl bromide, and for special product types.

He also explained the principle and operation of the so-called "vapor tap" valve, which he said taps off some of



The panels at New York clinics included (left to right): Fred Presant (ATI), Milton Fowks (Powr-Pak), and P. M. Prussak (Associated Brands); and John Hart (Stalfort), Tony Iannacone (Fluid), and Al Osman (Thomasson).

the vapor in the head space (during actuation) and thus can be operated when the container is held either right side up or upside down. He pointed out that this device usually enables the packager to achieve less refrigeration effects (due to quick evaporation of product from skin); and, in the case of such products as paints, better atomization.

SIMPLE aerosol laboratory operations can be set up for cold and pressure filling with just a compatibility tube, a pressure resistant burette, a pail, some copper tubing, and some copper tubing, and some dry ice, D. C. Geary of the Union Carbide Corp., New York, pointed out in an address on "Aerosol Laboratory Operations." He said that even the most basically equipped aerosol laboratory must have facilities for formulating, packaging, and testing; and that the investment in equipment should be dependent upon how many of these activities the laboratory is slated for.

Showing photographs of some of the commonly supplied laboratory equipment, he advised that the initial cost of setting up a small aerosol laboratory would range from $3,000 to $12,000 and require an annual budget of $12,000 to $15,000 per man. He accentuated the importance of shelf testing facilities for both normal and accelerated tests; and cautioned that ICC regulations require specific tests (i.e. open-cup flammability) that will have to be carried on in the aerosol laboratory.

AT the New York clinic a special formulation panel discussed various formulation questions, following the presentation of the formal papers. It was composed of Milton Fowks, research director of Powr-Pak, Inc., Bridgeport; Fred Presant, research director of Aerosol Techniques, Inc., also Bridgeport; and P. M. Prussak, chief chemist of Associated Brands, Inc., Brooklyn. Mr. Fowks, speaking on corrosion studies for the aerosol filler, pointed out that the filler has a good base of information from which to work in data previously assembled by container, valve, and propellant, suppliers. Also, he said, the filler usually relies heavily on previous products packaged in his plant to give him at least a general idea of what corrosion problems he might encounter in any new product. He pointed out that all of this should give him a good idea of how to proceed, but that the final decision about components and formulations must be made after extensive shelf testing and other practical rather than theoretical studies of a particular formulation.

Asked about what factors determine whether a product is to be cold or pressure filled, Mr. Presant said that the "activity" of the product at low temperatures would be a key factor. Others he mentioned were selection of a practical valve (if pressure filling were selected), amount of air in the container, and nature of solvent.

Powder formulations present a peculiar and distinct problem to the custom filler, Mr. Prussak reported. Predictability of product performance based on previous experience becomes especially tricky, he said, because components that may have worked with one formulation may not work at all with a similar one. "Orifice size alone is not the answer, it is rather the mechanism of the valve that is more important. Agglomeration of the powder particles can occur in any one of a number of locations, in the dip tubing, in the valve orifices, etc. We have settled on the method of packaging test powder formulations in clear coated glass containers to permit us to watch for trouble in areas where it is most likely to occur." Lubrication can be highly important in converting a standard formulation to one for a pressurized package, he suggested, since the carrier in the conventional package must be eliminated in reformulating the powder for an aerosol container.

A SECOND panel, this one on "Commercial Filling Methods," consisted of Anthony Iannacone, technical director of Fluid Chemical Co., Newark; John Hart, senior chemist at John C. Stalfort & Sons, Inc., Baltimore; and Al Osman, plant manager of Thomasson of Pennsylvania, Inc., Norristown, Pa. A question about how to reduce "down-time" in the aerosol filling plant, brought the following replies:

Mr. Osman: One important precaution is to have stand-by equipment for the pumps and other key units that can hold up the entire filling operation. Each line operation should be thoroughly analyzed to determine its weak links.

Mr. Hart: It is logical to schedule the most critical product first, and then run each in order of its difficulty of handling. We commonly run through a clean solvent common to the next product to be filled, so that changeover can be rapid without adulteration of product. In all cases it is necessary to have all supplies on premises *before* the operation is begun, and another good idea is to have a backlog of minor jobs (labeling and cartoning of odd lots) to permit maximum use of personnel during slow periods.

Mr. Iannacone: Maintenance is especially important. Our company maintains a special crew which works from line to line to keep all equipment functioning.

All three of the panel members were of the opinion that further automation

(*Continued on page* 58)

Storefront of the huge Rickel store at Succasunna, showing "Aerosol Demonstrations Today" sign used during promotion.

Customers were asked to guess how may aerosol cans were suspended in this net, (there were 357) and to drop their entries in barrel. Winner was presented with a 35-mm. camera. Such contests were also held in Rickel stores at Paramus and Union, N. J.

Aerosol Promotion Held at N. J. Supermarket

FOUR days of demonstrations were the highpoint of an aerosol promotion sponsored by the Aerosol Division of the Chemical Specialties Manufacturers Association, as part of its annual campaign to promote aerosols at the consumer level. The demonstrations were held in the new Rickel Brothers' do-it-yourself supermarket at Succasunna (near Dover), N. J., and featured a contest in which the store's customers were invited to guess the number of aerosol cans in a cargo net suspended from the ceiling.

Purpose of the promotion was to educate consumers, to show retailers that demonstration can stimulate aerosol sales, and to provide a case history which will be used to point out actual sales facts and figures in the retailer trade press. Also Rickel customers were interviewed during the course of the promotion to determine their general attitude toward push-button packaging.

The aerosol demonstration booth was located in an open space at the front of the store (near the check-out booths). In the foreground of the photo at left may be seen some of the many aerosol products displayed. Hanging from the ceiling is the net with the "guess how many" sign suspended.

To illustrate a leaf polish and a house plant spray, the demonstrator uses an African violet plant.

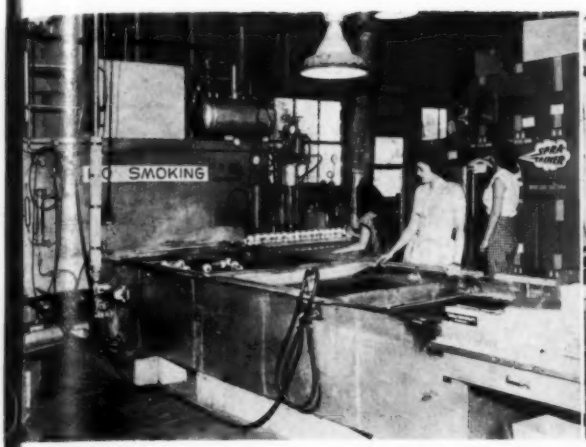
A clear plastic container is employed to show the volume of a pressurized can of shaving cream.

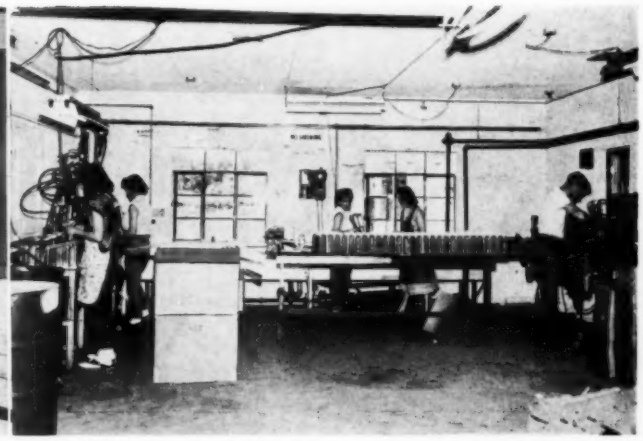
A small rectangular piece of carpet is used to demonstrate the holding ability of "Rug-Sta."

How to use a pressurized paints is demonstrated in a special spray booth. Target was a Chinese screen in addition to the easel behind the demonstrator.

IKI

two years of success with all types of propellants





RAPID growth and technical maturity have marked the brief two-year history of IKI Manufacturing Co., only aerosol filler in Wisconsin. Located in Edgerton, a small Wisconsin community, the company is one of the few of its size in the country equipped to handle all types of propellants and practically any volume order.

IKI already has two small plants in operation, one where conventional non-explosive products are filled; the other where such hazardous products as butane, propane, iso-butane, ethyl ether engine starter, etc., all are filled under carefully controlled operating conditions.

Plant No. 1 is equipped much the same as many aerosol plants throughout the country. However, the filling and crimping equipment has been specially chosen to give the line versatility and enable it to handle any number of valves and products.

Plant No. 2 is the site of one of the few truly explosion-proof filling lines in the U. S. Here too the line's versatility has been the chief factor in the selection of its components, for the plant is set up to handle both cold and pressure filling.

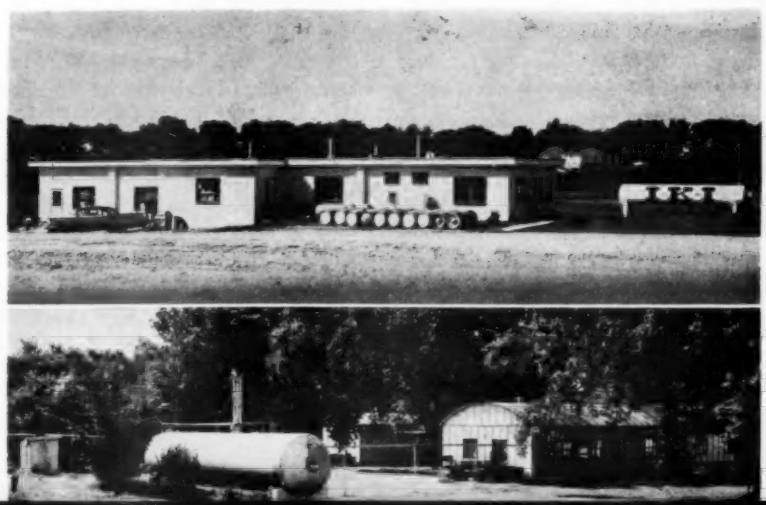
One distinctive feature of IKI's aerosol activity is its "solder seal" (perhaps better known as a fuseable safety seal) which is inserted in the mounting cap or valve. This feature, available to all the company's customer's, automatically vents the aerosol container if heat develops beyond a given point, preventing explosion of the container.

IKI was organized in the southern Wisconsin community of Edgerton in 1957, with Louis Godlewski and Stanley Midtbo as partners. Mr. Midtbo had had wide experience in

(*Continued on Page* 64)

Above (left): Filling line facilities at IKI's "Plant No. 2" are equipped with special safeguards to handle butane-propane and similar hazardous propellants. The line can also accommodate conventional cold and pressure filling. (Right) Plant No. 1 is designed to handle non-explosive types of propellants.

Right (above): An outside view of Plant No. 1, showing propellant storage tanks used for fluorinated hydrocarbons and compressed gases. (Below): Plant No. 2, where an explosion-proof line handles the more sensitive propellants.



Larami Associates . . .

Lynwood Laboratories . . .

Lenk Mfg. Co. . . .

Aerosols Featured at

SCORES of new aerosol products, plus several impressive all-aerosol displays highlighted the National Hardware Show at the New York Coliseum Sept. 28 through Oct. 2. The show, held annually to demonstrate and sell hardware and lawn and garden products to retailers and wholesalers, featured more aerosol products and more different product types than any previous show.

Probably the most impressive of the approximately 20 booths with predominantly aerosol displays were Larami Associates, Inc., York, Pa., and Lynwood Laboratories, Norwood, Mass. Both exhibited a wide range of product types, and their products for the most part bore new or newly designed labels.

Larami Associates, for instance, showed a new air refresher in pine, lavender, spice, mint, jasmine, and kashmere; a window cleaner, a foam charcoal starter, a flea spray for dogs and one for cats, a dog shampoo, a shaving cream, a dust mop spray, an insecticide, and a moth proofer. Each product bears the word "magic" on its label, the window cleaner reading "Magic Kleen," the air refresher "Magic Scene," the insecticide "Magic Kill," and so forth.

Lynwood Laboratories, on the other hand, had a distinct brand name for each product type, its insecticide, moth-proofer, hornet bomb, and ant bomb all going under the name "Shoo-Fly." Two special formulation cleaning compounds, one an all-metal foam cleaner and the other a dri-cleaner for walls and woodwork, go under the name "Fabul-X."

One Lynwood product, called the "Ivy-Bomb" is claimed to shoot a stream of herbicide 12 feet, thus enabling the operator to use it at a comparatively safe distance. Another product called "Walk 'N Weed," is for control of dandelion, plantain, ragweed and other broad leaf weeds. Lynwood also showed its "Sport Insect Repellent," a diethyl toluamide formulation; "K 9-Kop," a dog repellent; "Savadog" flea bomb; "Sing" bird spray; and its "Safe-Air," a deodorant-disinfectant-air sanitizer.

A number of regular yearly exhibitors at the show—Kerr Chemicals Inc., Des Plaines, Ill.; Seymour of Syracuse, Inc., Syracuse, Ill.; and Lenk Manufacturing Co., Franklin, Ky.; showed their usual impressive line of aerosol products. At the show Seymour of Syracuse introduced its "RIME" spray package, a rust inhibitive marine enamel in white, red, blue, gray, green, and yellow. In addition to its established line of spray paints and insecticides, Kerr Chemicals exhibited a new "quick dry" wood finish which will retail for $1.79, plus a "spatter spray" in a line of 12 basic colors. Kerr also showed its line of hobby sprays (three products designed to simulate grass, sand, and soil for model train installations), its line of automotive specialties (degreaser, insulation coating, and starting fluid) and a 16-ounce fire extinguisher.

Feature of Lenk's booth was its new "instant action" charcoal lighter, a butane-propane formulation retailing at 79 cents. Also shown was Lenk's regular line of propane-butane cartridge blow torches and a fire extinguisher. Propane torches were the main feature of two other large booths: Otto Berz Co., Rochester, N. Y. and Turner Corp., Syracuse, Ill.

One interesting new product unveiled for the first time at the Hardware Show was introduced by National Control Laboratories, Skokie, Ill., marketer of "Roost No More" an aerosol bird repellent. The new product is called "Crawlz No More," a pressurized tree banding compound which provides a barrier against crawling insects, climbing rodents, etc. The product is said to be non-toxic, odorless, colorless, and will remain "effectively tacky" for long periods of time.

"Sta-Put" a non-skid spray for rugs, now one of the better known of the specialized aerosol products, was the only product featured in the booth of Cling Surface Co., Buffalo. Dominant

Seymour of Sycamore . .

Cling Surface Co. . . .

Kerr Chemicals . . .

National Hardware Show

part of the exhibit was a blown-up model of the container.

As is usual in such shows, paints and paint devices comprised a substantial percentage of the products exhibited. In addition to Seymour of Syracuse and Kerr Chemicals, Sheffield Bronze Paint Corp., Cleveland, showed its "Quik Spray" aerosol enamels, Red-Devil Chemical Co., Mt. Vernon, N. Y. exhibited its "Red Devil" spray enamel, and a similar line of enamels, trademarked "Magic" was shown by the Magic Iron Cement Co., also of Cleveland.

The new "Jet-Pak" self-powered spray gun was the feature of the booth of Sprayon Products, Inc., Cleveland. This unit is powered by a can of conventional fluorinated hydrocarbon propellant and can be used to spray almost any type of paint, stain, varnish, or enamel. A similar unit, this one for insecticide dusts and liquids, was shown by the Union Carbide Consumer Products Co. Division of Union Carbide Corp., New York. Called the "Eveready Dust Spray Garden Gun," this device (also propelled by a fluorinated hydrocarbon cartridge) retails for $12.98. As usual Union Carbide also showed its aerosol "Home and Garden Insect Killer" and its "Rose Spray."

Garden chemicals were strong in all categories, especially aerosols. Science Products Co., Chicago, ("Wonder-Brel" plant stimulant and "Blossom-Set" tomato ripener), Miller Chemical & Fertilizer Corp., Baltimore ("Kwik-Tox Insect Spray," "Miller Fly and Mosquito Spray," gibberellic acid, and roach and ant spray); B. G. Pratt Co., Paterson, N. J. ("D-X Insect Spray"); Nott Manufacturing Co., Poughkeepsie, N. Y. ("Tri-Ogen" rose spray and "Bug-Not" insecticide); Stim-U-Plant Laboratories, Inc., Columbus, Ohio ("Stim-U-Plant" leaf polish, rose spray, and African violet spray); California Spray-Chemical Corp. ("Ortho" pruning paint bomb, rose and flower bomb, ant and roach bomb, household insect bomb, home and garden bomb, leaf polish bomb, screw worm bomb, indoor plant bomb, and "Scram" dog repellent); Boyle-Midway Division of American Home Products Corp., New York ("Antrol" rose spray, tree wound dressing, leaf shine, African violet and house plant bomb, and "Ridz" dog and cat repellent).

Household products in pressurized form were also a strong entry. Nip-Co Manufacturing, Inc., New Rochelle, N. Y., introduced a garbage can spray tradenamed "Garbo." Speco, Inc., showed its "Slikote" snow shovel spray, "Lith-Rem" silicone water repellent, and "Easy Cut" lawn mower spray. Others with strong household entries were Boyer Chemical Co., Evanston, Ill. (room deodorant, plant spray, garbage can deodorant, belt dressing, and an insecticide); E. I. du Pont de Nemours & Co. ("Jet Clene" upholstery cleaner); DeMert & Dougherty, Inc. (window cleaner, room deodorant, etc.); and H. Forsberg Co., Cleveland ("E-Z Glide" spray lubricant and primer and sealer).★

Two other aerosol-oriented exhibits were (top) DeMert & Dougherty and Sheffield Bronze Paint Corp.

Peet-Grady Test Method Still Far From Satisfactory, British Researchers Claim

THE Peet Grady Test Method fails to obtain needed data on insecticidal aerosols because of shortcomings in both the design of the chamber and the design of the test. These charges were made in the July/August issue of the British technical publication, *Pest Technology*, by F. G. S. Whitfield. Mr. Whitfield's paper was one of three lectures delivered to the Institute of Packaging on April 8.

Specifically, he declared that the standard Peet Grady chamber, which measures only 216 cubic feet, is "too small to enable an accurate dose to be obtained from certainly most of the valves in present use.

". . . However, the essence of the Peet Grady Test is that observation shall be carried out by personnel outside the chamber making their observations through the windows, and here lies the first problem. If the chamber is enlarged to a point where a suitable and accurate dose can be obtained from a pressure valve, then the chamber is too large for external observation. This means that the chamber must be large enough not only to allow the accurate dosage but to enable two persons to operate inside the chamber. From both these aspects the general opinion of both ourselves and of our colleagues at the Cooper Technical Bureau is that the minimum size should be 1000 cubic feet."

Turning to the operation of the test itself Mr. Whitfield made the following points:

"1. An *additional test* must be carried out using O.T.I. to check that the 24-hour mortality is between 30 and 55% and with approximately 95% knockdown in 10 minutes. This seems needlessly to reduce the 'efficiency' of the test method.

"2. The Peet Grady chamber has a volume of 216 cu. ft. i.e. about 1/5th of the 1,200 cu. ft. chamber used in the Cooper Method. The relative doses are 0.648 gm. and 3.0 gm. respectively, with tolerance ±0.108 gm. and 0.5 gm. With the former it seems that difficulty will be experienced in keeping within the tolerances which, although when expressed as a percentage (±17% of the dose) seem extremely wide, are in actual fact very small. Also there is the objection to the smaller dose that the abnormal opening and closing phases of the valve occupy an appreciable fraction of the total spraying period. It seems that 1,000-2,000 cu. ft. would be the optimum volume range of a test chamber.

"3. The C.S.M.A. Test Method tends to sacrifice flexibility by rigid standardization of every conceivable factor which may affect the response level, for the time being, of the flies. This is probably not adequate in many cases and, with a different experimental design, would not be necessary.

"4. The experimenter is unable, and is in fact expressly forbidden, to extract more than a small fraction of the information from a test which if differently designed could afford a number of validity checks and a numerical estimate of the relactive potency of the test preparation with respect to the standard, *without any extra cost.*

"5. There is no estimate of the 'slope' (i.e. the increase in response produced by a tenfold increase in dose). If a zero or negative slope occurred the experimenter would not be aware of it, and would automatically give a wrong opinion on the quality of the test preparation.

"6. There is no estimate of the precision of the result, and thus no basis for judging whether any observed differences in response level are significant or could have arisen by the ordinary random errors of sampling."

K. F. Goodwin-Bailey, a colleague of Mr. Whitfield, outlined details of Cooper's test chamber, which he and Mr. Whitfield expressed the hope would become the basis for establishment of a British Standard Method and possibly an International Method. His description is as follows:

"At the Cooper Technical Bureau a large room is used, approximately 1200 cubic feet in capacity, in which the temperature and humidity of the air is closely controlled and tests are usually carried out at approximately 80° F. and 50% R.H. The room is illuminated to give a mean light intensity of 10 fc. when measured 3 feet above the floor. The floor is covered with absorbent paper and this is removed after each test, the floor being the part of the room which becomes quickly contaminated. Walls and ceiling are checked for insecticidal residues at intervals of time and at any sign of insecticidal activity they are washed.

"Having conditioned the room, 3 g. total aerosol filling per 1000 cu. ft. are released and immediately afterwards 500 flies are liberated. Two operators are in the room and over a period of 10 minutes following release of aerosol they record the number of flies knocked down at 2, 4, 6, 8 and 10 minutes. The flies are then collected by gentle suction into holding jars and mortality counts recorded at the end of 24 hours.

"Early experiments were carried out with free flying flies and caged flies. From the experimental point of view caged flies have certain advantages, contamination of the floor covering is largely immaterial and complete control over the period of exposure is possible. The difficulty sometimes ex-

(Continued on Page 64)

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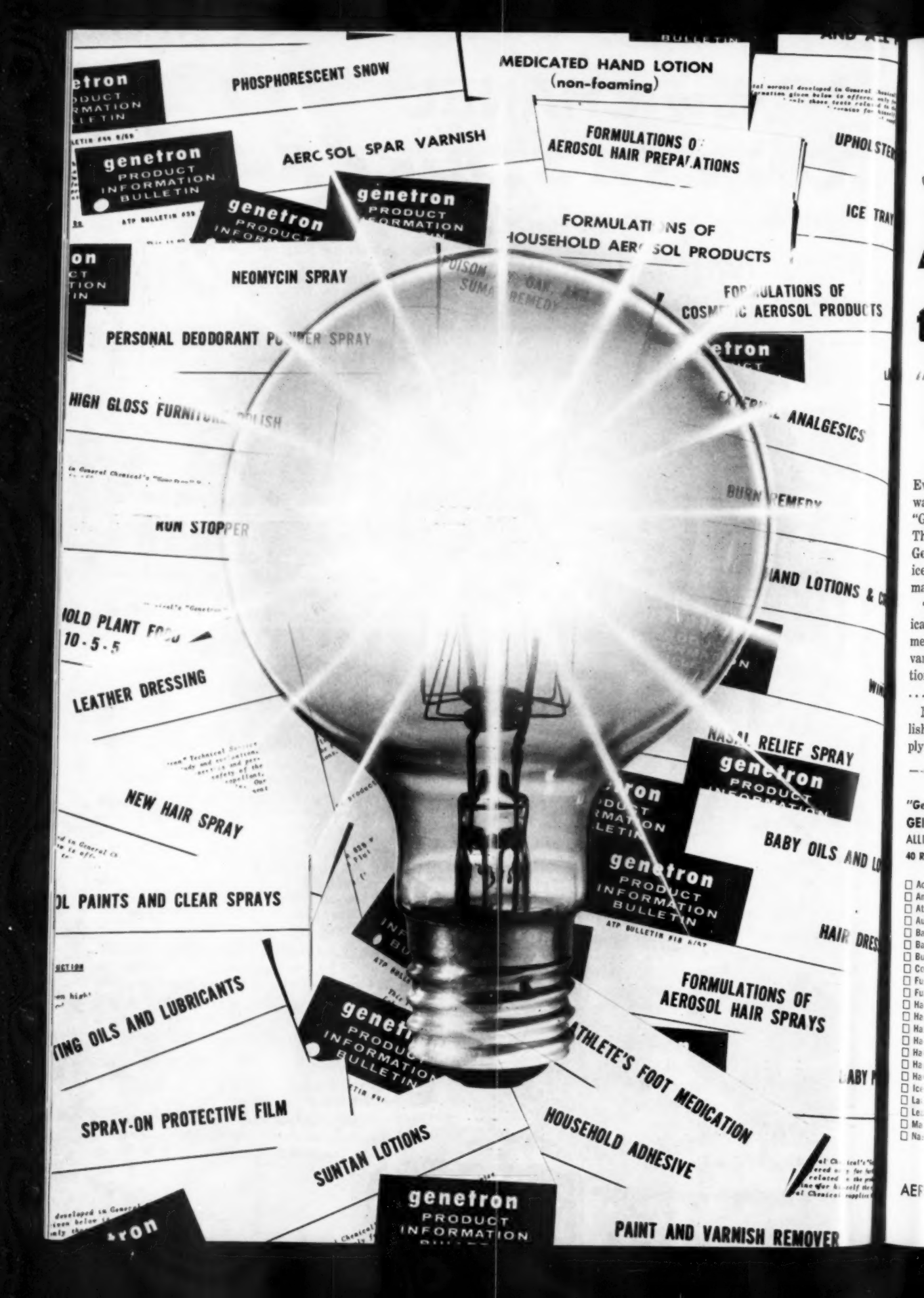
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FORMULATIONS OF
COSMETIC AEROSOL PRODUCTS
PERSONAL DEODORANT POWDER SPRAY
HIGH GLOSS FURNITURE POLISH
ANALGESICS
BURN REMEDY
RUN STOPPER
HAND LOTIONS &
10-5-5
LEATHER DRESSING
NASAL RELIEF SPRAY
NEW HAIR SPRAY
BABY OILS AND LO
OL PAINTS AND CLEAR SPRAYS
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AA-119

U. S. Drug Firms Seen Using Great Britain To Test Market New Aerosol Products

Brian Kirk (center) discusses a new pharmaceutical product with Donald Tuttle (left), sales manager of Risdon's Aerosol Division, and Andrew Wolff, vice-president of Pegasus International Corp., which handles Risdon's relations with its overseas licensees.

GREAT BRITAIN is being used as a major test market area for aerosols developed by leading American pharmaceutical manufacturers. This was revealed in an interview last month with Brian Kirk, managing director of British Aerosol Corp., Risdon licensee in Britain, who had just completed a four-week visit to U. S. aerosol filling plants, marketers, and Risdon's valve manufacturing installation.

Asked why this situation exists, Mr. Kirk suggested that the most obvious factor is the lack of language barrier, enabling the U. S. marketer to use almost exactly the same label as he would in the U. S. "Also," he pointed out, "there are less stringent regulations governing the marketing of pharmaceuticals in Britain than there are in the U. S. And finally, the fact that Britain has socialized medicine, and that the State pays for most medicines, gives these marketers a 'ready-made' consumer market."

The long summer in Britain this year has brought with it big sales figures for the aerosol industry, particularly for suntan preparations and insecticides, Mr. Kirk declared. He said that the market has been so strong that even French made suntan preparations have been able to record good sales on the British market. "Total aerosol product sales in Great Britain should reach at least 25 million," he commented.

According to Mr. Kirk, the small-scale price cutting of insecticides and room deodorants, though it probably spurred the summer sales figures to a certain degree, may also have caused some harm to future consumer acceptance of aerosols. To "jump into" the competition, he said, cheaper formulations, cheaper valves, cheaper perfumes, less testing, and other economic sacrifices to good product quality were made. One new marketer, he said, this year put out an insecticide which has practically no insect killing efficiency and is consequently selling it for much less than efficient insecticides sold by reputable marketers.

"One factor that has prevented widespread consumer complaints has been that these cheaply made products have not yet been able to get widespread retailer distribution in Britain. It should be remembered that self-service supermarket-type selling (where comparative price would matter) has not yet taken over the major portion of the British consumer market. In fact, I should say that there aren't more than 10 or 12 large supermarkets (by U. S. Standards) and there couldn't be more than 100 smaller ones.

"Hair sprays are becoming increasingly popular in Great Britain, and this year is the first in which they may challenge insecticides for leading product type. Shaving cream still enjoys only modest popularity, though I believe one factor here might be lack of promotion at the consumer level. The purchase tax of 30% continues to hold back perfume and cologne sales, but this may change with growing popularity of this container in the U. S. and France, plus improved consumer education about the convenience possible with such products.

"Whipped cream is still of little commercial importance in Britain, though this could well change with the growth of home refrigeration. Toothpaste has had some modest success, but it is still significant that one of the leading marketers in England, McClain's, has not yet seen fit to bring out his product in aerosol form.

"'Johnson's Pledge' has enjoyed considerable early success, so much so in fact that another U. S. company is currently introducing another household polish through its British subsidiary. The household product category will be one of the next bright ones in England, with one highlight a pressure-packed general household detergent to be introduced sometime early next year."

Turning to the subject of imports and exports, Mr. Kirk predicted that the Conservative victory at the polls last month could probably mean in-

(*Continued on page* 64)

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LETHANE 384

Parfums Marcy, Inc., New York, last month introduced its **Replique** and **Plaisir** perfume in a sculptured, heavy crystal reusable glass bottle with an aerosol innovation which is claimed to be the first such device in the perfume marketing field. A propellant cartridge, fitted with a special dip tube and valve, acts as a separate phase and eliminates the need to change the perfume to make it more compatible with the propellant. Three ounce bottle with two extra propellant cartridges retails for $50 plus tax for Replique and $60 for Plaisir. Valve-cartridge mechanism is made by Marcel Franck, Paris.

NEW PRODUCTS AND PACKAGES

Konk, a concentrated Pyrenone-base aerosol insecticide, has been introduced by Syncro-Mist Controls, Inc., New York, for use in either an automatic dispenser of manually. Container is 12-ounce Crown "Spraytainer", metered valve by VCA, and filling by Aero-Chem Fillers. Insecticide concentrate is made by Fairfield Chemical.

Rust-Kon-Trol is a non-flammable rust preventive developed by Wilco Co., Los Angeles, filled by Western Filling. Container is 11-ounce Continental Can fitted with a Precision valve. It will retail at $1.75.

Oh La La is a new product of Parfums Ciro New York, packaged in a Risdon "Vanity-Mist" container with metered valve. Removable coated-glass container is by Wheaton Plastics and unit is custom filled by Aerosol Techniques, Inc. Outer case is etched silver plate.

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In this column important aerosol subjects appearing in other periodicals (both domestic and foreign) will be reviewed and summarized. It is felt that this service will enable the reader to keep abreast of most of the significant contemporary articles on the industry, even though they may appear in other periodicals. Since there is a chance that some pertinent articles may be overlooked, it will be helpful if readers will call our attention to any they judge important enough to review.—*The Editor.*

AEROSOLS in review

Fluorescent Paints Said to be More Than "Fad"

FLUORESCENT paints in aerosol form have become a steady sales item and cannot be considered a passing fad, declare John Harmon and Robert Voldisch, of Lawter Chemicals Inc., Chicago, in the July 23 issue of *Paint, Oil, & Chemical Review*. They report that great strides have been made in solving the settling, fading, and the valve problems through pigment and vehicle research.

"Pigment research has also removed much of the fear of sunlight that plagued early fluorescent aerosol paint producers. The fact that these pigments were very light-fugitive themselves was made worse through faulty application techniques. Very thin films could be applied, and often were applied by users who did not know the fugitive characteristics of the colors. Then they were amazed and irritated to see their brilliant signs fade out in the course of a week or two. Over the past six years several improvements in pigments and formulations (chiefly in pigments) have taken the fluorescent aerosol products to a point where fading is not really of great concern.

"What are today's fluorescent pigments like? They're finely powdered organics which fluoresce brilliantly under ultraviolet or daylight illumination. Softening point runs between 145 and 155°C. — that's 293° to 311° Fahrenheit. Specific gravity is 1.36 grams per cubic centimeter. Average particle size is 3.2 to 3.5 microns, Fisher sub-sieve sizes, with a maximum particle size of probably 25 to 30 microns. Bulking value is 0.0883 gallons per pound, or 11.33 pounds per solid gallon. Refractive index runs right around 1.61 to 1.63. They are soluble in esters, ketones, and ethers; insoluble in water, aliphatic hydrocarbons, and most aromatic hydrocarbons."

Messrs. Harmon and Voldisch report that formulation research has established that the acrylic resins are the best carriers, mainly because they are transparent enough to transmit light of the wave length required for optimum fluorescence (plus their resistance to yellowing).

". . . A typical fluorescent aerosol paint formulation has from 15 to 20% pigment, from five to 10% plasticized acrylic resin, plus aromatic solvents and a small amount of suspending agent. The viscosity at filling is approximately 12 to 15 seconds in a Number 4 Ford cup at 77°F. Grinding or dispersing is done with a pigment paste in the acrylic vehicle, with thinning to 12 or 15 seconds with aromatic solvents immediately afterward. Most of the let-down solvent is toluol to insure fast drying. Higher boiling aromatics are usually present to prevent drying at the nozzle and to improve the leveling properties of the film.

". . . The actual nozzle or orifice through which the paint leaves the can is very important. It has been found that the aerosol spray patterns usually desired for regular paints do not work the best with fluorescent paints, although regular paint valves as manufactured by any number of companies can be used. There's still a lot of room for experimentation on valves to get the optimum spread and density of spray pattern with the fluorescent aerosols."

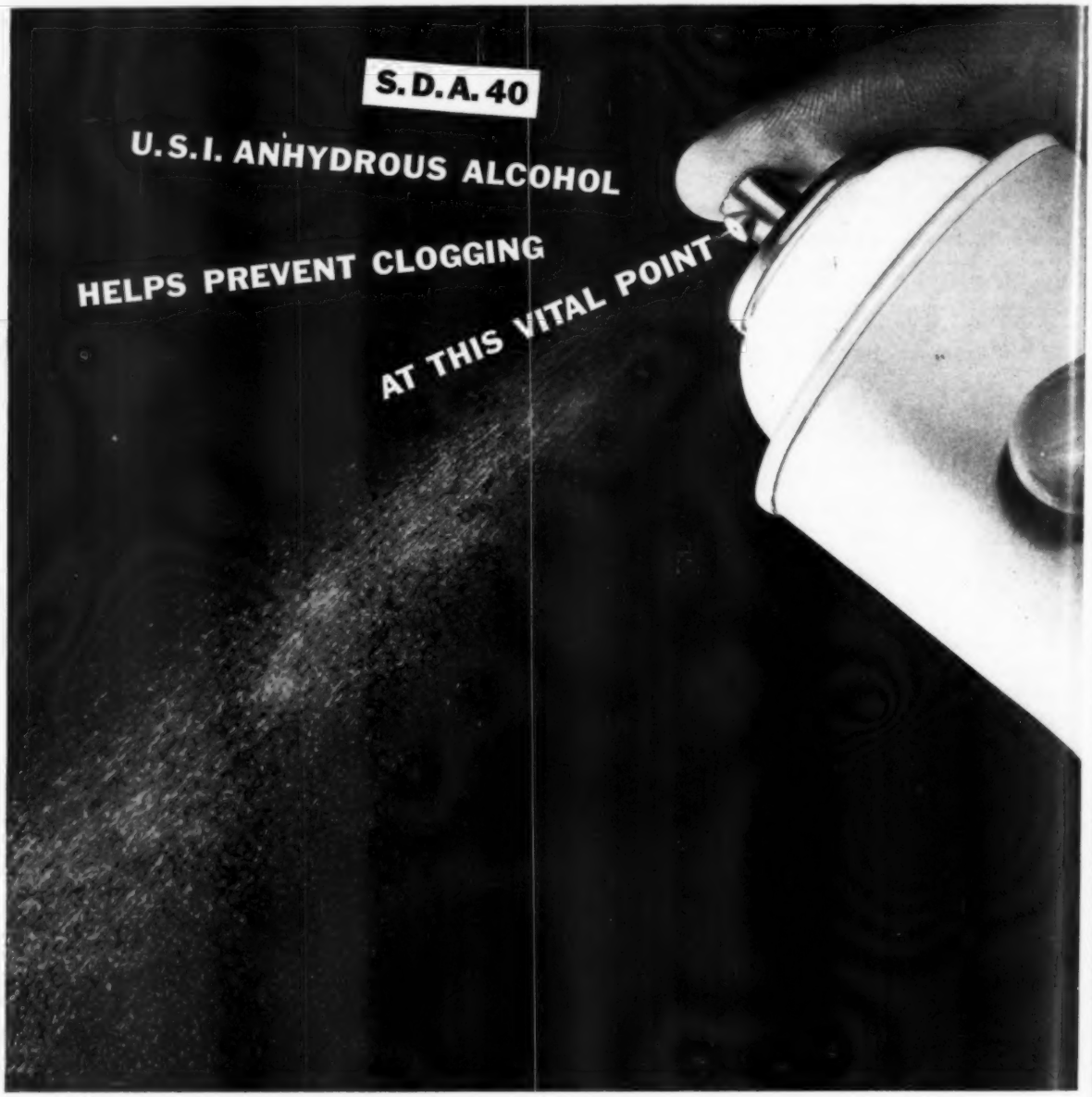
"How did the argument start?"

From *Food Processing*

•

THE same issue of *Paint, Oil & Chemical Review* contains a symposium-type discussion on "What's Ahead for Aerosols?" Contributing views were J. R. Degnan, vice-president of Martin-Senour Co., Chicago; Herbert D. Fine, president of Plasti-Kote, Inc., Cleveland; W. E. Krueuer, Finishes Division of DuPont; William Moonan, vice-president of Sprayon Products, Inc., Cleveland; and Morris R. Wingfield, vice-president, Benjamin Moore & Co., N. Y.

All five executives were in agree-



The experience of more than a decade shows that U.S.I. anhydrous (water-free) S.D.A. 40 helps prevent clogging of the valve . . . a fact that takes on more and more importance as competition increases among aerosol products.

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ment that consumer acceptance still needs to be cultivated if pressurized paints are to attain their true sales potential. Messrs. Fine and Moonan both cited poor product quality by some marketers as one major industry hurdle, and both pointed out that these products are a source of possible serious danger to properly formulated products.

The question of whether the 32-ounce aerosol can would be practical in the paint field brought negative answers. Messrs. Moonan, Wingfield, and Fine were in agreement that the 16-ounce size is about the optimum for a practical aerosol paint. Mr. Fine added: "Finger and arm fatigue have been a problem that we have always considered carefully. A 24- or 32-ounce can would have little benefit, would create greater needs for inventories, and would produce practically no extra sales."

Market predictions for 1965 were optimistic. Mr. Fine sees the possibility of a market of 250 million cans, depending on consumer education. Mr. Degnan predicted sales would reach somewhere in the vicinity of 120 million, and Mr. Wingfield between 100 and 150 million.

Asked about *their* companies' production figures for 1959 Mr. Fine said that his company will produce about 10 million aerosol paints for 1959, and that this will probably be less than 10% of the total market. Mr. Degnan revealed that Martin-Senour will produce about 2.25 million, and Mr. Kreuer reported about 700,000. Mr. Moonan said he believed his company (Sprayon Products) would probably fill about 35% of the total aerosol paint output for this year.

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NEW technological studies in container corrosion prevention are reported in the September issue of *Consumer Packaging* (formerly *Packaging Parade)* in a fairly comprehensive article on the current status of the aerosol package.

Most interesting portions of the ar-

(*Continued on Page* 63)

Butane and Propane as Aerosol Propellants . . . III

a symposium of opinions on safety, danger to the consumer, etc.

Just how safe *are* butane, propane, and the other hydrocarbon propellants? Is their use inherently dangerous to the consumer, or has the flammability of the propellants been overemphasized?

In the interest of clearing up some of these questions, *Aerosol Age* here continues a round-up of qualified opinions from suppliers, fillers, and others in the industry. The third installment, printed below, is the view of a propellant supplier whose company has had wide experience with these propellants. Qualified persons who have had direct experience with the hydrocarbons are invited to contribute *their* opinions—The Editor.

By C. Brooks Ricca

Sales Manager for "Isotron" Propellants
Pennsalt Chemicals Corp.
Philadelphia, Pa.

AS A supplier, with considerable investment in this industry, we question the use of flammable and possibly-hazardous propellents which could place a dangerous product in the hands of the consumer.

Consciousness of consumer safety is quite apparent in the aerosol industry, as evidenced by the industry's use of safe measures in testing of products for stability, pressure, disposal, labeling, safe fill, flammability, ingredient hazards, and particle size. All of these measures, sponsored and supported by the aerosol industry, surely represent a measure of consumer-safety awareness. In continuation of that awareness, the industry is well advised to approach with utmost caution a change that could negate the advances already achieved.

There *are* real problems in handling hydrocarbon propellents. Accidents do occur, as witnessed by the four or more major fires and explosions of bulk hydrocarbons during 1959. Transfer and blending equipment is costly, and is no safer than the people operating it. The technical problems raised by the separation of liquid blends, the need for purification of hydrocarbons, and the higher moisture specifications are constant sources of difficulty. There is a need for evaluation of low-temperature fractionation, which could be quite hazardous during cold filling of blends. The disposal of rejected aerosols and of propellent heels involves additional difficulties.

Another set of problems appears at the consumer level. What are the problems of spraying and leakage? Will hydrocarbon propellents accumulate in households, in confined areas where electric motors are not of the explosion-proof type, in kitchen stoves, laundries, closets, and chests? What personal hazards are involved in the use of such products as hair sprays, paints, insecticides, room deodorants, snow and numerous other aerosols? Do existing regulations provide adequate test procedures to evaluate aerosols based on hydrocarbon propellents for consumer safety?

The answers to these questions, and additional questions not now apparent, will require detailed investigation. This may best be done by the CSMA Scientific Committe's Safety Sub-Committee.★

Particle Size Measurement Termed Vital Factor in New Product Development

SIGNIFICANT differences of opinion regarding the optimum conditions for product stability show the obvious need for accurate means for measuring particle size characteristics, Dr. Joseph L. Kanig, associate professor of pharmacy at the Columbia University College of Pharmacy told the monthly meeting of the New York Chapter of the Society of Cosmetic Chemists on Oct. 7. Professor Kanig, who is also director of the new aerosol research laboratory at Columbia, revealed that he and his associates are working on a new method of measuring particle size characteristics which combines two of the commonly accepted techniques.

This particle size determination is so important to the industry, he declared, because "particle size can be held directly responsible for the rate of dissolution, speed of absorption, covering ability, protective efficiency, color and elegance"—all highly significant factors in pharmaceutical, cosmetic, and other products. He pointed out that for nearly every pressurized product, there exists an important relationship between the particle size of component materials and product efficiency or activity.

Professor Kanig reported that control of particle size in the field of pressurized packaging offers a greater challenge than in a number of other chemical and industrial fields where much pioneering work has been done with it. He pointed out that mechanical operational efficiency of the package and therapeutic activity of the ingredient depend on it. Using inhalation therapy as an example, he showed that by "controlling the particle size of the medicament within narrow limits, it can be deposited at a chosen site within the respiratory tract for the purpose of eliciting very specific responses." Particle size is essential in topical medications in aerosol form, he explained, since particle size directly controls "maximum uniform coverage, rate of release of medicament, and the characteristics of the film remaining on the skin."

One accompanying problem, professor Kanig said, is particle agglomeration, in which particles tend to collide and adhere to each other in the valve orifice or after the propellant-product mixture emerges from the valve. He reported that this problem has slowed up the development of commercially practical powder aerosols, but that further particle research may open the way to pressurized packaging of a far wider range of such products.

Among the corrective steps he suggested for some powder formulations is the addition of a carefully selected lubricant, further study of propelllant mixtures, modification of existing valves, and mechanical size reduction of the product particles. "The formulation should not contain particles of over 50 microns if the formulator expects to employ conventional components and propellant mixtures."

Returning to therapy possibilities with aerosols, he explained that close control of particle size may make it possible to achieve "very narrow therapeutic effects" by depositing the drug particles in certain areas of the respiratory tract. By adjusting the formulation to include various size particles, it may also be possible to achieve prolonged drug action.

The accepted methods of measuring particle size he classified as direct and indirect, but cautioned that each has its limitations and each "presupposes accurate conveyance of a valid sample to the measuring device."

Professor Kanig pointed out that sieving and microscopy are the two practical methods of direct determination. Sieving, he said is satisfactory for particles above 60 microns, but it must be accompanied by other methods for particles smaller than that. Microscopy can be used for particles down to .2 microns, but the method of slide preparation must be a valid one, and the tediousness of the whole process is a further limiting factor.

The indirect methods he listed as sedimentation, impaction and inertial techniques, and various optical techniques. For each he listed a number of instruments, most of which were developed by other industries for their own particular problems.

The new laboratory device developed at Columbia, he explained, "employs the combination of the light scattering *and* gravitational sedimentation techniques". Thus far, he concluded, the instrument has been yielding "valid sampling of pressurized suspensions and will be further used to study those variables affecting the stability of particles in suspension in propellants". He indicated that he would be ready to unveil the instrument to the industry early next year, and possibly to publish some data gathered with it at the same time. ★

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Atlas Predicts New Containers

By 1965 the industry may have as many as 150 container shapes and sizes to choose from. This prediction was made last month by Douglas Atlas, vice-president of G. Barr and Co., Chicago, who reported that there are presently some 75 different types and shapes of aerosol containers.

"Aerosols have now arrived at a source position high in the ranks of the best-dressed packages," Mr. Atlas pointed out.

NEWS of Pressure Packaging

FDA Whipped Cream Ruling

Standards for two aerated dairy products—a "whipped cream" and a "whipped table cream"—have been proposed by industry and published by the Food and Drug Administration. Standards are needed, FDA maintains, because there are many variations in the composition and label names of products sold for the same general purpose.

"Whipped cream," under the proposals dated Oct. 2, would have to contain at least 30% of milk fat, by weight. This is the minimum requirement in the existing standard for "whipping cream." Not more than one-half of one percent of the contents of a can would consist of one or more of the following emulsifying ingredients, added to aid the whipping process: Extract of Irish moss, locust bean gum, karaya gum, algin (sodium alginate), gelatin, monoglycerides or diglycerides (or both) or fat-forming fatty acids except lauric acid.

"Whipped table cream" would have to contain at least 18% by weight of milk fat and not more than six-tenths of one percent of the emulsifying ingredients. The existing standard for "table cream" requires a minimum of 18% milk fat.

Nitrous oxide or a mixture of nitrous oxide and carbon dioxide would be permitted or optional ingredients in both products as whipping and propelling agents, according to the proposals.

If sweeteners or flavors are used, the labels would have to so indicate.

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Kartridg-Pak Names Allen

Carl F. Allen has been named sales and service engineer for the South Central region by Kartridg Pak Co. (formerly Mojonnier Associates), Franklin Park, Ill. He will cover Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma, Arkansas, Kansas, and Missouri, except St. Louis.

Mr. Allen has been in the factory sales department of Kartridg-Pak for three years, and prior to that was sales engineer with a dairy supply company in that area for several years. He will handle Kartridg Pak's aerosol packaging lines and other Kartridg Pak packaging equipment.

•

Shinn to Crown N. Y. Post

Ray Shinn, former aerosol packaging specialist in the aerosol research and development section of the Can Division of Crown Cork & Seal Co., Inc., Philadelphia, has been named regional technical representative for the company's New York office. He will cover the New York and New England areas, with headquarters at Crown's New York office.

Mr. Shinn is a graduate of the University of Pennsylvania, with a B.S. in biochemistry, and joined Crown in 1953.

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AHP to New Headquarters

American Home Products Corp., New York, whose Boyle-Midway Division is a leading aerosol marketer, will occupy a new building in New York, probably by mid-summer of 1960. The new structure is a 25-story skyscraper to be located at Third Ave. and East 42nd St.

•

Max Factor Co. Honored

Max Factor & Co., Hollywood, Calif. marketer of aerosol and conventional cosmetic products, was honored by the Hollywood Chamber of Commerce on Oct. 9 in a tribute to the firm's 50th anniversary year. A luncheon program, held at the Hollywood Roosevelt Hotel, was attended by civic and business leaders of the community. A feature of the program was a slide presentation of the history of the company, which grew from a $2000 a year business in 1909 to a $50 million a year volume today.

Blame Propellant for Fatality

The production of phosgene through chemical breakdown of fluorinated aerosol propellants in the presence of heat has been blamed for one death in Sweden, reports the October "Aerosol Bulletin" of the Federation of European Aerosol Associations. The death, the result of lethal oedema of the lungs attributed to "gas poisoning", reportedly occurred after the patient had sprayed his bedroom with an aerosol insecticide prior to going to bed. "An electric heater with glowing filament was turned on at the head of the bed. During the night the patient woke up and, attempting to turn off the heater, fell down. There followed vomiting and diarrhea, and the next day after he went to work, he fainted and was taken to the hospital, where he died three hours later."

From this the article concludes: "the symptom of poisoning is so insidious that another diagnosis could easily have been made for this illness and cause of death. It is advisable to be cautious about aerosol bombs in connection with heated stoves, heated irons, and all sorts of flames."

U. S. propellant manufacturers point out that the industry has known for years that fluorinated hydrocarbon propellants (in the presence of heat in the 500 to 600°F. range) decompose to phosgene and other gases. In fact, this is one of the principal reasons that fire extinguishers pressurized with this type of propellant have not been approved by fire underwriters and other fire fighting authorities. They further declare that the user would have to spray inordinately large amounts of an aerosol under specific conditions (i.e., in presence of an intense flame or heat source near the user's head), in order to reproduce the conditions described in the FEA bulletin.

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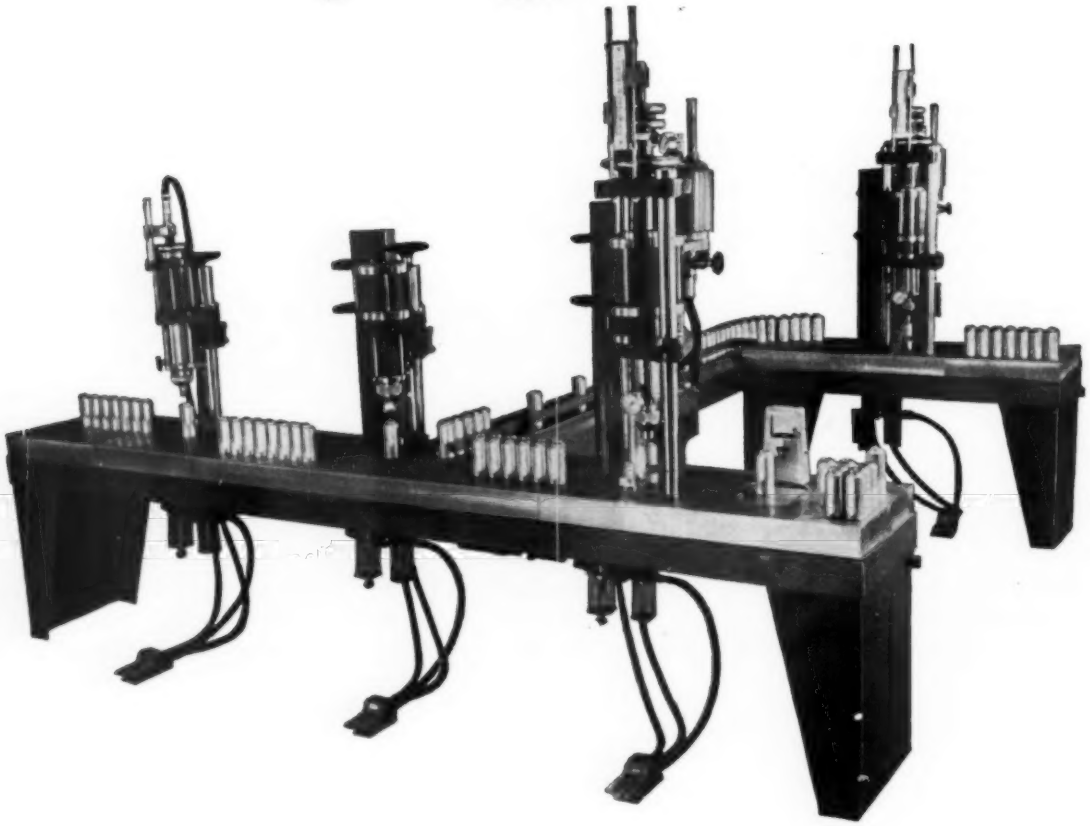

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Magnetic Chain Link and Tank Type Test Baths, Conveyor Lines and Tracks, Mufflers and Fast Exhaust Units, Propellant Pumps, Purgers, Complete Line of Laboratory Equipment, etc.

Cosmetic Chemists Honor Gump

Dr. William S. Gump, research associate of The Givaudan Corp. and its subsidiary, Sindar Corp., has been chosen by the Society of Cosmetic Chemists to receive its 1959 Medal Award for his contributions to the "art and science of cosmetics."

Dr. Gump has been recognized as a leading contributor in the field of bacteriostatic agents for use in antiseptic cosmetics, soaps and pharmaceuticals. His work in this field over the last 20 years included the discovery of hexachlorophene, which has led to the development of many other anti-bacterial substances. His many scientific contributions, together with those of his co-workers, have furthered understanding of the mechanism of the deodorant action of anti-bacterial agents.

Dr. Gump was born in Germany and was educated at the Universities of Tubingen and Munich, receiving a Ph.D. degree in chemistry in 1923. He joined the Givaudan organization as a research associate in 1937 and began his work on anti-bacterial and anti-fungal agents and other physiologically active substances. He is a member of the American Chemical Society, the New York Academy of Sciences and the Society of Cosmetic Chemists.

The medal will be awarded to Dr. Gump at the Society's annual meeting and medal award dinner on Wednesday, Dec. 2, at the Hotel Commodore, New York.

•

FDA Inspections to Rise

An increased budget will result in stepped-up Food & Drug Administration inspections during the current physical year, it was revealed in Washington last month. The FDA, with a budget of $13.8 million (an increase of 26.4% over 1959), will increase its inspections of food, drug, and cosmetic plants from 21,840 to 27,000.

This will bring the frequency of inspection period from once every 4½ years to once every 4 years, and will result in a rise in number of sample examinations (for adulteration and misbranding) from 29,750 to 33,000.

•

Shulton Names Ad Director

Gilbert J. Supple has been appointed advertising director of Shulton, Inc., New York. He succeeds Walter P. Lantz, who becomes director of market research.

Prior to joining Shulton, Mr. Supple was creative and television director at R. K. Manoff, Inc. At Shulton he will be responsible for the firm's over-all advertising program.

•

CSMA Honors H. W. Hamilton

The 1959 Achievement Award of the Chemical Specialties Manufacturers Association will be presented next month to H. W. Hamilton, longtime secretary of the association. Mr. Hamilton will be the seventh recipient of the award, which is presented annually for "outstanding contributions in the field of chemical specialties."

Mr. Hamilton has been secretary of the association for nearly 20 years, and in 1928 and 1929 was president of the group, then known as the National Association of Insecticide & Disinfectant Manufacturers. Since 1950 he has been general manager and secretary of the CSMA.

Mr. Hamilton holds degrees from Bates College and Massachusetts Institute of Technology. He served in the American Expeditionary Force in World War I in the Sanitary Corps.

•

Rose Wins Golf Trophy

Gene Rose, president of the Gene Rose Co., Chicago custom fillers, has been awarded the M. F. Charley trophy for class B golfers by the Chicago Perfumery, Soap, & Extract Association. Other winners for the 1959 season were E. H. Johnson of Polak's Frutal Works, Inc., who won the Scotty Fessenden Memorial trophy (class A); Glenn Green of Columbia-Southern Chemical Corp., the Harry Holland trophy (class C), and Les Keepper of Abbott Laboratories, the Humiston-Keeling trophy (class D).

ATI Names Earle Taylor

Earle L. Taylor has been named plant manager of Aerosol Techniques, Inc., Bridgeport, Conn., custom filler. Formerly assistant plant manager, he will now be in charge of all processing and maintenance at the company's recently-expanded main manufacturing center.

With ATI since its founding, Mr. Taylor had a key role in its installation. He has figured importantly in the development of such mechanical processes as shaving cream gassing and the adapting of conveyors to aerosols.

Mr. Taylor came to Aerosol Techniques from Connecticut Chemical Research Corp., where he was maintenance supervisor. Before that he was with Island Equipment and Conveyor Specialty Co. During the war he served with the Quartermaster Corps.

•

Reddi-Wip Names Ad Director

Cory D. Clark, Jr. has been named director of advertising of the Reddi-Wip Corp., Los Angeles. Mr. Clark was formerly national advertising and sales promotion manager for Star Kist Foods in charge of the company's tuna, pet foods and frozen foods. He has also served as advertising manager for the cereals division of Carnation Co.; assistant divisional advertising manager of Safeway Stores in Los Angeles; and co-owner of his own advertising agency in Salt Lake City and Denver, Colorado.

He will review and re-evaluate the advertising and marketing plans for all of the Reddi-Wip products for 1960, the announcement stated.

•

de Elorza to Davega Board

John de Elorza, president of Old Empire, Inc., Newark, N. J. custom fillers, has been elected a director of Davega Stores Corp. of New York. He is a member of the Young Presidents' Organization and a former president of the National Association of Private Brand Manufacturers.

•

Gribben to Foster D. Snell

Foster D. Snell, Inc., New York, chemical research and consulting firm, has announced the appointment of Owen T. Gribben as chief food chemist.

Hemmingstad to McKernan Co.

Roy Hemmingstad has joined The E. J. McKernan Co., Elgin, Ill., as sales representative for its line of Seaquist "Seaspray" aerosol valves. He will be in charge of the company's Eastern sales office at 120 Liberty Street, New York 5, N. Y. Telephone number is BArclay 7-3374.

Mr. Hemmingstad has held various aerosol sales posts for the past ten years. He has sold plastic closures for such firms as West Penn Manufacturing & Supply Corp., Sterling-National Seal Co., and Ross Containers.

•

Treumann to Boyle-Midway

Hans Treumann has been appointed technical product manager of Boyle-Midway Division of American Home Products Corp., New York, major aerosol product marketer.

For the past six years he has been manager of the Research Division and chief engineer and chief chemist at the United States Testing Co. As a chemical engineer he will work with Boyle-Midway product managers, and also appraise the possibilities of new products.

•

Pyrethrum Plants for Congo

The Government of the Belgian Congo has announced plans to establish pyrethrum extraction plants in that country. To date the dried flowers raised in the Congo have all been exported, but now the pyrethrum will be processed locally and only the extract exported. On July 1, 1959, pyrethrum extract was made subject to export licensing. Pyrethrum is a major component of most aerosol insecticides.

•

Jean Fabre Dies in France

Jean Fabre, board chairman of Roure-Bertrand Fils et Justin Dupont, a leading world producer of essential oils and perfume materials, died recently at his summer home near Grasse. He is credited with having been instrumental in the merger of two leading French companies into the Societe Anonyme des Etabissements Roure-Bertrand Fils et Justin Dupont. When his uncle, Louis Roure, died in 1947, Mr. Fabre succeeded him as president of the company.

From 1949 to 1952 he was president of the Syndicat National des Fabricants et Importateurs d'Huiles Essentialles et Produits Aromatiques Naturels.

•

New Cosmetic Bill Criticized

"It seems beyond the power of the Health, Education and Welfare Department to draft simple, understandable, and useable legislation," S. L. Mayham, executive vice president of the Toilet Goods Association told the Oct. 8 meeting of the Cosmetic Industry Buyers and Suppliers in New York. Speaking specifically of a proposed Federal bill that would require the pre-testing of cosmetics and cosmetic ingredients, he said the TGA will "resist with every resource at its command any attempt to pass bad legislation with respect to cosmetics or cosmetic ingredients."

This legislation, Mr. Mayham declared, will most likely be considered at the next session of Congress, beginning in January. He indicated that one major objection of the cosmetic industry is "the vast diversity of opinion with respect to what should be tested and by what methods. This opinion has to be clarified and concentrated behind one general proposal, not only not yet drafted but not yet thoroughly considered," he charged.

"All cosmetic manufacturers know that dangerous products and bad products are the surest insurance of failure. The government seems to think we are all crooks and should furnish them the ammunition to prove it."

•

Keller to Warner-Lambert

The Products Division of the Warner-Lambert Pharmaceutical Co., Morris plains, N. J., has appointed Kenneth W. Keller director of merchandising and promotion. He was formerly director of retail marketing of the LePage's Division of Johnson & Johnson.

•

Riker Laboratories Names Two

Riker Laboratories, Los Angeles aerosol pharmaceutical marketer, has announced the appointment of Charles Adams as sales manager and Robert Service as advertising manager.

Hollidge Heads Packaging Group

Kenneth B. Hollidge, executive vice president of Arthur Colton Co., Detroit manufacturers of aerosol filling equipment has been elected president of the Packaging Machinery Manufacturers Institute. He and the other new officers will serve two-year terms beginning Jan. 1, 1960.

Other new officers elected include: first vice-president, W. K. Huguenin, division manager of the Packaging Machinery Division of Food Machinery Manufacturing Co., Philadelphia; second vice-president, Harold Mosedale, Jr., vice-president of engineering, Package Machinery Co., East Longmeadow, Mass.; and third vice-president, William W. Anthony, Jr., vice-president and executive general manager, Crompton and Knowles Packaging Corp., Holyoke, Mass.

In his capacity as third vice-president, Mr. Anthony will serve as chairman for the Packaging Machinery Manufacturers Institute Show of 1961, which is scheduled for the new Detroit convention hall from Oct. 31 to Nov. 3 of that year.

•

Badertscher Becomes Consultant

A. Edison Badertscher has retired as entomologist and horticulturist in charge of the insecticide department of McCormick & Co., Baltimore, Md., to form his own consulting firm. He will maintain offices at 414 Light St., Baltimore 2, and offer services in labels, product development, and other entomological services.

Mr. Badertscher is well-known in the insecticide field, having served several years as chairman of the CSMA's Insecticide Scientific Committee. During his chairmanship the committee's work resulted in adoption of the Official Test Insecticide. He came to McCormick & Co. in 1931 after two years' graduate work at Ohio State University, followed by a year in a fellowship on rotenone and pyrethrum at the graduate school of Rutgers University. The latter fellowship was sponsored by McCormick & Company.

•

Universal Changes Co. Name

Universal Spray Can Corp., 80 Washington Street, New York 6, N. Y. last month changed its company name to Uni-Wax Aerosol & Chemical Corp. An announcement said the change was made to "reflect the broader scope of the firm's activities."

Spectacular in selling perfumes
Available for profitable new applications

TOUCH-N-SPRAY

TRADEMARK

Purse-size aerosol

Get that important competitive edge with this glamorous dispenser... multiply sales by having your customers carry and use your product away from home!!

Refillable—long cap to prevent accidental activation—can be printed with your own designs—available in highly polished brass cap, plastic or low-cost coated paper tube.

Is Your Product on This List?

Nasal Sprays
Inhalants
Topical Antibiotics
Prescription items
Burn Preparations
Poison Ivy Remedies
Spray Bandages
Mouth Washes
Deodorants
Talcum Sprays
Hair Sprays
Athlete's Foot Remedies
and of course—*Perfumes!*

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40 YEARS

THE WORLD OVER KLM ROYAL DUTCH AIRLINES

THE WORLD'S FIRST AIRLINE

Society of Cosmetic Chemists Lists Dec. Meeting Program

THE Society of Cosmetic Chemists last month announced final details of its program for its annual meeting on Wednesday, Dec. 2 at the Hotel Commodore Hotel in New York. The one-day meeting, scheduled for the day after the meeting of the Scientific Section of the Toilet Goods Association will include the following papers:

MORNING SESSION 9:00 A.M. — 12:30 P.M.

1 *New Trends in Cosmetic Testing.*
Dr. Louis C. Barail
Consulting Biochemist, New York City.

2 *The Beauty of the Enzyme Screen.*
Dr. V. F. Lisanti
Tufts University School of Medicine.

3. *Vinyl Copolymer in the Cosmetic Cosmos.*
Mr. Paul Weitz
National Starch and Chemical Corporation.

4. *The Closed, Open, Prophetic and Repeated Insult Patch Tests in Study of Cutaneous Reaction.*
Dr. Joseph V. Klauder
Consulting Dermatologist, Philadelphia.

AFTERNOON SESSION

5. *Dental Calculus.*
Dr. Stanley Hazen and Dr. Helmut Zander
Department of Periodontology
Eastman Dental Dispensary
Rochester, New York.

6. *New Polysaccharide Gum from Dextrose by Microbial Synthesis.*
Dwight L. Miller, R. F. Anderson, Allene Jeanes and S. P. Rogovin
Northern Utilization Research and Development Division of U.S.D.A., Peoria, Illinois.

7. *Chemistry of the Inflammatory Response of the Skin.*
Dr. J. C. Houck
Biochemical Laboratory
Childrens Hospital Research Foundation
Washington, D.C.

Stanley Drug Buys Ingram

Ingram Menthol Co., New York marketer of aerosol and conventional shave creams, has been purchased by Stanley Drug Products, Portland, Ore., it was revealed early last month. Ingram will continue operations as a wholly-owned subsidiary of Stanley Drug.

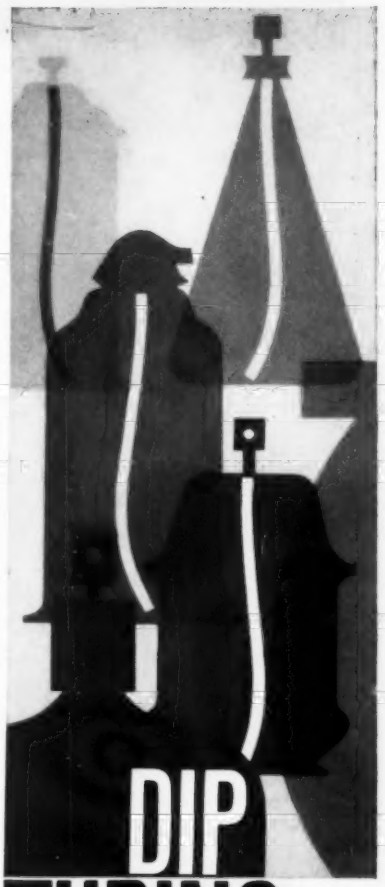
Included in the transaction was Ingram's "Enriched" shave lather and a new aerosol shaving cream which incorporates coconut oil and milk plus a hand cream ingredient to provide extra skin protection for the user of the product. Both items will be featured nationally in radio, television, and newspaper advertising.

Ingram will continue to operate out of New York, but will be under the direct supervision of Stanley drug executives, Stanley Bachman, company president, and E. A. Bachman, board chairman.

•

Canco Names F. J. Dowling

Appointment of Fenton J. Dowling as manager of the marketing division of Canco's sales department has been announced by the Canco Division of the American Can Co., New York. He succeeds Edward K. Walsh, who has been appointed an assistant to the vice-president of the division's sales department.



OUR OWN STRESS-CRACK RESISTANT FORMULAS SUPPLIED IN WHITE OR NATURAL—COILED, SPOOLED OR CUT TO EXACT LENGTH

for aerosols squeeze bottles, lotion pumps, garden sprays

Unique automated process controls quality, size & tolerance.

- NSC-1 formula for regular aerosols and lotion pumps.
- NSC-3 formula for food aerosols and for less swell.
- Nylon for food aerosols and fire extinguishers.
- Rigid vinyl for lotion pumps.
- Capillary tubing for squeeze bottles and drop-by-drop aerosols.

Lab report furnished with each batch

CSMA

ACTION PLASTICS INC.
50 California Ave. • Paterson, N. J.

Announces

NEW Spherical Disposable Containers

TO PUT PRESSURE BEHIND YOUR SALES

● Manufacturers, fillers, distributors, dealers, and users are discovering new sales appeal, new convenience, new compact size with TMC Spherical Pressure Containers.

They open new marketing opportunities for fire extinguishers, oxygen resuscitators and an infinite variety of other products. Distinctive spherical shape provides the most economical container in size... in capacity... in working pressure... and in low cost.

TMC spherical containers are made in high volume to precision standards that fit automatic filling machines. Write or phone for full information on these new containers for your product.

ICC APPROVED

- Various sizes with working pressures from 190 to 1750 psi.
- Easily equipped with spray valve, nozzle, oxygen mask or other fittings.
- Spherical shape saves space.
- All containers individually tested under water.
- Available in choice of colors.
- Write, phone or wire giving size and pressure requirements.

Millions of TMC King Size Disposable Containers Are Building Sales!

TMC King Size cylindrical containers have become standard of the Aerosol Industry. They are made in standard sizes of 55, 75 and 132 cubic inch capacities. Special sizes quoted on request. Write or phone for Selection Guide No. DC-559.

TUBE MANIFOLD
CORPORATION
419 BRYANT STREET • N. TONAWANDA, N. Y.

Mojonnier Name Is Dropped

The Kartridg-Pak Machine Co. of Davenport, Iowa, Madison, Wisc., and Chicago, and its Mojonnier Associates Division, Franklin Park, Illinois, will both henceforth be known as the Kartridge Pak Co., it was announced early last month by Harold M. Mayer, president. The name Mojonnier will no longer be used.

A subsidiary of Oscar Mayer & Co., Kartridg Pak Machine Co. manufactures meat and food packaging machinery. Mojonnier Associates, which became a division of Kartridg-Pak in October, 1958 (with the sale of assets by Mojonnier-Dawson and Mojonnier Associates, Inc.), is a pioneer manufacturer of complete aerosol packaging machinery.

•

Cuba Restricts Luxury Goods

The Cuban Government recently announced restrictions on imports of various luxury goods coming into that country. The restriction is reportedly based on the weak dollar exchange position of the Republic's finances. Initial reports from the Cuban Embassy indicated that, though there may be some cosmetics and toilet goods falling under the new restrictions, shipments of such goods arriving within the "immediate future" will not be affected.

•

Shulton Appoints L. M. Miles

The appointment of Leon M. Miles as a product manager has been announced by Shulton, Inc., New York. He will plan and coordinate the marketing program for "Desert Dri," "3-Way Curl Spray" and other new products now being prepared for marketing. Prior to joining Shulton, he was marketing supervisor for Needham, Louis & Brorby, Chicago and before that was associated with Young & Rubicam in Chicago.

•

Liebel to Felton Branch

Felton Chemical Co., Brooklyn, N. Y., producer of aromatics and essential oils, has named George Liebel manager of its Canadian Division. He joined the company's Montreal office in 1944, transferring to sales in 1948.

Equipment—Processes—Bulletins—

Aerosol for Fungus Treatment

Dr. Kaye H. Kilburn, Fitzsimmons Army Hospital, Denver, reports that the administration of amphotericin-B in aerosol form satisfactorily treats patients with fungus disease. In a report in *The American Review of Respiratory Diseases*, Dr. Kilburn reveals that the spray was formulated with distilled water and that it was used to treat a patient with endobronchial histoplasmosis. He comments that at the first few breaths produced slight discomfort in the patient, but that thereafter there were no ill effects.

The drug is usually given intravenously, but when administered that way sometimes produces undesirable side effects.

•

Residual Insecticide Bulletin

A technical bulletin describing the new Fairfield Insecticide, Residual Concentrate No. 1, a combination of Pyrenone and malathion, has been prepared by Fairfield Chemicals, Food Machinery & Chemical Corp., New York City.

The bulletin, available to formulators, packagers and manufacturers of insecticides, describes the new concentrate and its properties and shows a sample label. The concentrate is described as being exceptionally effective in controlling roaches and other crawling insects. It combines the high knockdown and kill efficiency of Pyrenone with the long lasting residual effects of malathion. The inherent odor of the latter has been largely eliminated, it is claimed, without impairing its toxic efficiency.

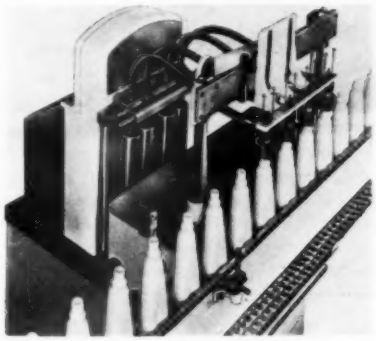
Copies of the bulletin can be obtained by writing to the company at 441 Lexington Avenue, New York 17.

•

New Medicated Product Line

The Health Products Division of Chemical Specialties Co., Brooklyn, N. Y., last month introduced its "Spra-O-Med," a pushbutton vaporizer and the first of three such new medicated products to be brought out by the company this year. Kenneth Rader Co. will handle advertising on the products, which will be advertised on radio in the metropolitan New York area.

High-Speed Ingredient Filler



A newly designed piston filler for use with glass and plastic containers has been developed by Popper & Sons, Inc., 300 Fourth Ave., New York 10. Called the "Model LF-540 PerfeKtum Piston Filler," it will handle containers up to 12 ounces at rates of up to 250 per minute. Among the features of the filler are special spoon-type nonsplash filling needle and stainless steel positive cutoff slide valves.

•

New Aerosol Newsletter

First issue of a newsletter covering publicity and promotional activities has just been released to its members by the Aerosol Division of the Chemical Specialties Manufacturers Association, New York. Called "Pressure Points of Interest," the newsletter is designed to keep members up-to-date on the progress and accomplishments of the publicity program being conducted by the Aerosol Publicity Committee and of its agency.

"Pressure Points" will be published quarterly. The first issue, covering May through August, of four pages, reports such items as the industry's promotion being put on in a chain of New Jersey houseware-hardware supermarts later this month; publicity features in the works; results of syndicated newspaper features; announcement of an aerosol industry Speakers Bureau; etc. Copies may be obtained by writing CSMA, Aerosol Division, 50 East 41st Street, New York 17, N. Y.

•

Automatic Aerosol Dispenser

An electrically-actuated timed aerosol dispensing device has been developed in Belgium by C. Lenoir, 17 Avenue du Gardon, Auderghem. The unit, registered under Belgian patent 572,376, is said to be particularly suitable for room deodorants and insecticides in public places, hospitals, theatres, aircraft, and ships. As does a previously developed U. S. device, the Belgian unit works with replaceable aerosol containers.

•

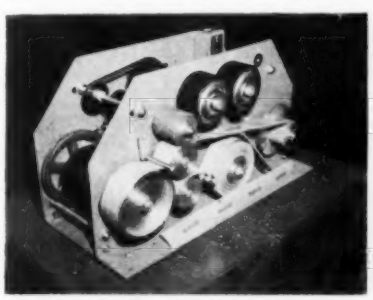
Monobloc Aluminum Containers

London Aluminum Containers Ltd., London, England, one of three companies of the Midland Aerosol Group, last month announced a full line of monobloc aluminum aerosol containers ranging in size from one-half to 20 fluid ounces.

•

Power Driven Tape Printer

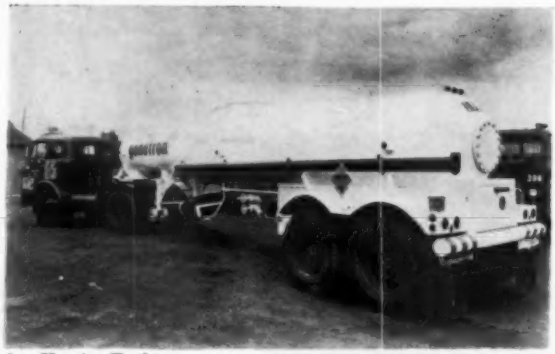
A new power driven machine for printing such roll stock as pressure sensitive tape, Kraft gummed tape, and



pressure sensitive labels has been announced by Kiwi Coders Corp., 4027 N. Kedzie Ave., Chicago 18. The unit can be used for code dating, printing a name, shift, net weight or other required identity. It prints and re-winds at speeds of up to 1000 imprints per minute.

New Line of Propellant Trailers is Announced

Development of a new line of twin-compartment tank-truck transports designed to carry liquefied gases such as aerosol propellants, carbon dioxide, and methyl chloride has been announced by Delta Tank Manufacturing Co., Baton Rouge, La. Company spokesmen said the first of the new units (right) has been placed in service by Hearin Tank Lines of Baton Rouge and currently is being used to transport "Genetron," an aerosol propellant produced by the General Chemical Division of Allied Chemical Corp. The new "Genetron" transport is designed for 300-pound working pressures and has a 3,450-water-gallon capacity.



Marketed through Trailmobile Inc., the new neck-down transports are equipped with separate pipe lines for each of their individual compartments. This permits hauling two different liquids on the same run. Delta Tank is a wholly-owned subsidiary of General Gas Corp., of Baton Rouge.

Masking Agents for Pesticides

A new line of masking agents for insecticides, described as "long-lasting and effective," has been introduced by P. Robertet, Inc., 221 Fourth Ave., New York 3. Developed in the Grasse, France laboratories of P. Robertet & Cie, parent company, they are said to add their own odor at the same time they mask the odor of the ingredient.

•

British Cold Relief Product

"Max Instant Cold Relief," an aerosol product with qualities much like those of a vaporizer, has been introduced in Great Britain by Mondart Ltd., London aerosol marketer.

•

CSMA Proceedings Available

The proceedings of the 45th mid year meeting of the Chemical Specialties Manufacturers Association have been published. The 204-page book contains all papers, discussions and committee reports presented at the meeting, held in Chicago, May 18-20. Prices are $7.50 per copy, postpaid in the United States and Canada, and $8.00 per copy, postpaid to other countries. The CSMA office at 50 E. 41st Street, New York 17, points out that this edition is available in a limited number of copies only.

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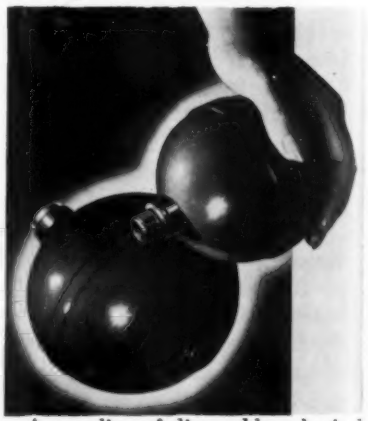
New Spherical Containers

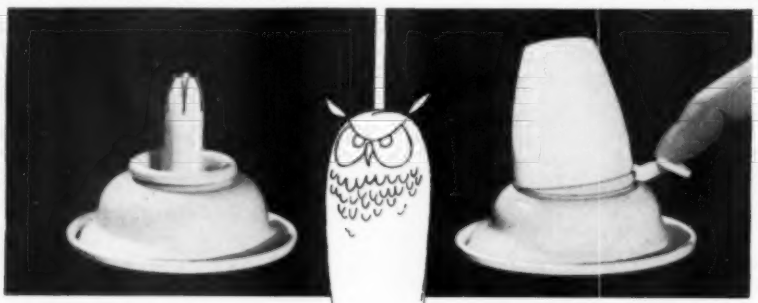


A new line of disposable spherical aerosol containers has been announced by the Tube Manifold Corp., 415 Bryant St., N. Tonawanda, N. Y. The units will handle a range of working pressures up to 1750 psi, making them applicable for use as high-pressure aerosols, fire extinguishers, oxygen resuscitators, and similar uses. They will fit standard valve and other operating fittings.

•

Aeratom Propellant Pump

A new type of piston-driven propellant pump has been developed by Aeratom Ltd., Rapperswil, Switzerland. The unit operates automatically by means of a special air motor and, when installed between propellant tank and filling machine, is said to eliminate the necessity for frequent charging of the propellant container with nitrogen or compressed air.



WISE BUYERS KNOW THE BEST FOODS NEED THE BEST

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Super Whip has a complete line of foam and food valves. Our variable orifice assures perfect rate of flow control. It gases faster than any valve on the market thereby increasing production speed. Its fingertip control will delight the housewife. Our laboratory can put up your samples.

Super Whip E Z lift dust caps put an end to prying, pulling and squeezing. A slight press of the finger and the E Z lift dust cap is off. It will not break, and is *reusable*. Eliminates product and gas discharge from accidentally striking nozzle when removing dust cap.

WRITE, WIRE OR PHONE FOR FULL INFORMATION AND SAMPLES TODAY!

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Army Approves New Pressurized Fire Extinguisher

THE U. S. Army's Corps of Engineers has approved a small, hand-held fire extinguisher that uses less than three pounds of a brominated compound to do the same fire-fighting job on electrical and flammable liquid blazes that would require considerably larger quantities of the agents now in use.

This approval opened the way for the Army supply depots to procure the new, safer extinguishers to replace carbon tetrachloride and other types of extinguishers in all mobile vehicles and ground installations of the Army. Specifications are based upon tests conducted by the Army Engineers at their Fort Belvoir, Va., Research and Development Laboratories and in the Du Pont Company's "Freon" Products Laboratory, which produced the brominated compound.

Nitrogen is used as a pressurizing agent for Du Pont's "Freon-13B1" monobromotrifluoromethane in the new extinguishers, providing an internal pressure of 400 pounds per square inch gauge at 68° F. That dispensing pressure is sufficient to provide operability at temperatures as low as minus 80° F. Army Engineers' specifications for the new extinguisher require that it not only be operable between minus 65° F. and 125°., but also prescribe the size of fires which the extinguisher must be capable of quelling.

Under Engineer specifications, the extinguishers employing two and three-quarter pounds of "Freon-13B1" (monobromotrifluoromethane) must be capable of extinguishing Class B (flammable liquid) and Class C (electrical) fires including a standard four-foot diameter gasoline tub fire; three 2-foot diameter gasoline tub fires in succession, without recharging, and a standard two by four foot gasoline on cotton waste fire.

Work also is under way at the Engineer laboratories on extinguishers using 15 and 50 pounds of Du Pont "Freon-13B1" fire extinguishing agent. When perfected, Army officials noted, the three sizes of extinguishers will provide portable fire fighting equipment capable of controlling all types of flammable liquid fires from a small spill blaze to those covering much larger areas.

Considerably higher cost of the brominated fire extinguishing agents is more than justified by their added effectiveness and safety, the Army Engineers reported. One of the biggest advantages of "Freon-13B1" is the fact that it has an Underwriters' Laboratories Class 6 toxicity rating, safer even than carbon dioxide, and is considerably less toxic than Class 3 materials which include carbon tetrachloride.

"Freon-13B1," which combines bromine for fire extinguishing effectiveness, fluorine for stability and low toxicity, and carbon in the same chemical molecule, is said to be an exceptionally stable compound that can be used satisfactorily with most metals. It also has little or no effect on commonly used elastomeric or plastic construction materials, thus reducing to a minimum the problems of selecting suitable construction materials for fire fighting equipment, Du Pont said.

•

Coding Attachment Line

A complete line of coding attachments for cartons and containers is described in a new catalog sheet prepared by Bell-Mark Corp., 18 Ropes Place, Newark 7, N. J. Attached to conveying or packaging machinery, the units place a code date, price mark, carton identification, or other information on cardboard, paper, metal or plastics. The attachments are designed for use with rubber type.

•

Florasynth Flavor Aroma Catalog

A wide variety of flavors, spices, certified colors, sauce bases, aromatic chemicals and cover odors are listed in the latest Florasynth catalog. Many of the flavors and aromas are catalogued according to application.

Various formulas for the proper use of these aromas, flavorings and coloring agents are also included in the new 36-page book, which can be obtained by writing on company letterhead to: Florasynth Laboratories, Inc., 900 Van Nest Avenue, New York 62, N. Y.

AEROFLEX® "P" DIP TUBES

- QUALITY CONTROLLED—Every shipment laboratory tested for crack resistance.
- Ideal for aerosols, atomizers, squeeze bottles and lotion pumps.
- Odorless, non-toxic, resistant to most filler and propellant chemicals, crack resistant through ANCHOR's exclusive formulation of polyethylene.
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Schrader Details New Valve

A Schrader's Son, Division of Scovill Manufacturing Co., New York, last month announced further details of its new, toggle action aerosol valve. As a result of toggle action and special button design, the new valve will always dispense in the right direction, it is asserted, straight ahead, away from the user and in the direction the finger is pointing.

So that the single valve design will handle as wide a range of viscosities and spray patterns as possible, the interior orifice at the point of the stem can range from .010 to .030 and the button orifice from .030 to .040. An additional restriction can be imposed by the spring cup to which the dip tube is attached — this opening can range from .062 down to as small as .020.

Other design features and material specifications are:

Mounting Cup: tin-plate with double epoxy-plastic coat.
Stem: "Zytel" Nylon.
Spring Cup: "Zytel."
Rubber Gasket: Neoprine.
Spring: Stainless steel wire.
Button: "Alathon" 10 polyethylene.
Dip Tube: Stress-crack resistant polyethylene.

Quality control can be maintained on the new valve, it is stated, because all but the dip tube are manufactured in the Schrader plant by its own personnel. The Schrader Rubber Department—a specialty rubber compounding unit, can provide flexibility in changing rubber gaskets to meet conditions of chemical compatibility. Special gaskets can be supplied that will reduce the possibility of deterioration in propellants and concentrates, known to have adverse effects on normal rubber.

The Schrader engineering and laboratory staffs have been set up to design new valves which will dispense the product regardless of size and rate of spray, spray material, propellant, etc. Modern laboratory equipment is available to customers on request to perform quantitative and qualitative analysis on any aerosol product.

•

Dodge & Olcott Catalog

A 36-page price catalog of essential oils, aromatic chemicals has been issued by Dodge & Olcott, Inc., 180 Varick Street, New York 14. It includes short descriptions and suggested uses of the various products.

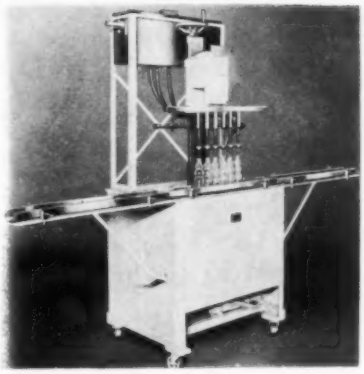
Double Your Production with
THE AMCO HAND CRIMPER
FOR SMALL LOT AND LABORATORY WORK

1. Manually operated, short stroke and multiplied leverage lessen operator fatigue.
2. Single stroke action locates can, seats valve in position, and crimps.
3. Keyway guided head keeps crimper jaws centrally aligned for all can heights.
4. Convenient . . . can be mounted anywhere.
5. Completely enclosed for safety . . . no moving parts exposed.
6. Light, compact, durable unit weighs 35 lbs.

Immediate delivery from stock. Guaranteed for 90 days. Write for literature.

AMCO AEROSOL MACHINERY CO.
80A MAGNOLIA AVE., WESTBURY, L.I., N.Y.

New Ertel Gravity Filler



A new model gravity filler series, featuring new design techniques, has been introduced by Ertel Engineering Corp., Kingston, N. Y. Called the "EGR" series, the units are equipped with seal and drip-proof spouts which provide for quick horizontal and vertical changeover and dismantling and cleaning.

All liquid parts are stainless steel and the spout bar adjustment is horizontally controlled by a simple handwheel. The units will fill all types of liquids, including foams, into all cans, plastic bottles, and other standard containers.

•

Hydrocarbon Vapor Data

A National Bureau of Standards report which provides easy reference to the vapor pressures of a number of hydrocarbons at low temperatures has been published by the Office of Technical Services, U. S. Department of Commerce.

The data collected in the volume, one of a series of NBS Technical Notes, was drawn from a literature survey for use in the analysis of low-temperature processes such as the purification of hydrogen and the design of such apparatus as low-temperature distillation or scrubbing equipment and cryogenic baths.

The hydrocarbons are methane, ethane, propane, n-butane, isobutane (2-methyl propane), n-pentane, ethylene, propylene, 1-butene, acetylene, and cyclopropane. In general the range covered is from 1500 mm down to approximately 0.001 mm Hg. For the most part, the data apply to the liquid range.

The report, PB 151363 *The Vapor Pressures of Some Hydrocarbons in the Liquid and Solid State at Low Temperatures* (NBS Technical Note 4), W. T. Ziegler, National Bureau of Standards, U. S. Department of Commerce, May 1959 may be ordered from OTS, U. S. Department of Commerce, Washington 25. It contains 19 pages and is priced 75 cents.

•

Marble Use on Rise

The aerosol industry is becoming one of the largest industrial users of marbles, a survey by American Can Co. revealed last month. Marbles are being used, one per can, in aerosol paints to mechanically break up the pigment which may have settled between uses.

One of Canco's largest customers for aerosol paint cans is Krylon, Inc., Norristown, Pa., which since 1948 is reported to have marketed more paint than all other similar producers combined. Kryon uses more than 20 million marbles a year.

Carbide Offers Surfactant Data

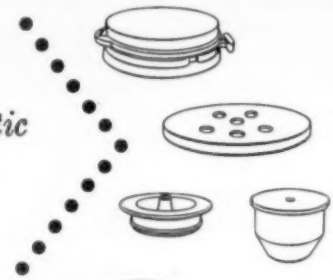
A new 44-page booklet, describing the properties and uses of "Tergitol" surfactants, has been published by Union Carbide Chemicals Company, division of Union Carbide Corp.

The booklet contains data for eight nonionic and four anionic Tergitol surfactants, including selection, solubilities, properties, formulations, applications, performances, specifications and test methods, shipping, bulk storage, and physiological properties. A detailed bibliography is included.

Both types of surfactants give rapid wetting and penetrating action, but under different conditions. The Tergitol nonionic surface active agents are of the polyethylene glycol-ether type, while the Tergitol anionic surface active agents are basically sodium salts.

Tergitol surface active agents are used in the formulation of bactericides, cosmetics, detergents, emulsion paints, latex dispersions, leather treatments, sanitizers, silver cleaners, wax polishes, and other products.

If you are using plastic fitments like these



...this is the machine that will help increase your profits

IT'S the Consolidated H-O-F Capper, and you can use it for applying odd as well as conventional shapes of *aerosol* caps. You'll get automatic sorting, too. And you'll find this machine fits into any *aerosol* filling line. Speeds from 60 to 250 caps per minute with ready changeover from one size container to another. Write for complete details.

Other machines are available to handle odd shaped closures such as these

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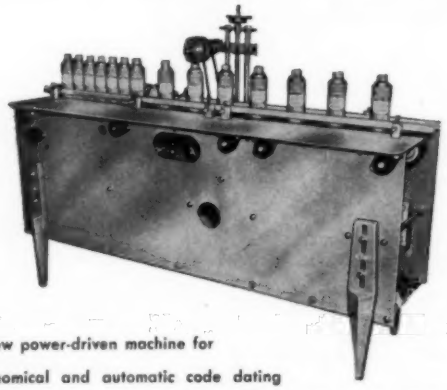

a new power-driven machine for economical and automatic code dating the concave bottoms of pressurized cans or flat bottoms of other round containers with work table area. Will mark top, bottom, or both at the same time.

Send details on your specific marking problems. Literature available on all types of applications.

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Advertising Manager
Aerosol Age

P.O. Box 31 **Caldwell, N. J.**

Propellant Blending Reprint

Five methods for blending aerosol propellants are analyzed in a technical article offered by Union Carbide Chemicals Company, Division of Union Carbide Corp., New York.

Authored by Carbide's E. E. (Rusty) Husted, the article is based on a paper presented at the recent (May 1959) meeting of the Chemical Specialties Manufacturers Association. Aerosol fillers are giving increased consideration to propellant blending, he explains, because of the variety of blends required in the packaging of the multiplicity of products offered today.

The five blending systems discussed use weigh tank, proportioning pumps, the displacement meter, or radiation equipment, or entail continuous proportioning. Also covered in the article are two principles essential to accurate blending. The article is illustrated with tables, a photograph, and a schematic drawing.

Copies may be obtained by writing to Advertising Department, Union Carbide Chemicals Co., 30 East 42nd St., New York 17, N. Y.

•

Evans in Particle Research

A new approach to the analysis of particle size and distribution is now under development in the radioisotope laboratory of Evans Research and Development Corp., New York consulting firm. The work is being done under a contract from the Atomic Energy Commission.

The company reports that projected success of this particle size analyzer will result in a "precise, rapid and economical method" of determining particle size and distribution. This is of importance to the aerosol drug, cosmetic and other industries which utilize powders, emulsions, suspensions, gels and aerosols.

Dr. Jane Connor, head of the Evans Research radioisotope laboratory, pointed out that the chief object of many technical processes is a material of a certain fineness. Improved production efficiency and product quality control hinge on how successfully industry solves this two-fold problem: one –to specify fineness and two—to find ways and means of fulfilling desired specifications.

Cognizant of the many limitations of the types of particle size analyzers now available, the Atomic Energy Commission (as part of its Isotopes Development program) has authorized Evans Research to undertake the design, construction and commercial development of this soft-beta particle size analyzer. This is based on the original concept of the instrument as proposed to the A.E.C. by Evans Research.

•

New Peet-Grady Laboratory

Insect Control & Research, Inc., 1115 Rolling Road, Baltimore 28, has established a new Peet-Grady test laboratory for studying performance of household and industrial insecticides. The laboratory is claimed by the firm to be the only such unit available in its area for general testing work.

Insect Control & Research is a chemical and general entomological consulting firm headed by Dr. Eugene Gerberg.

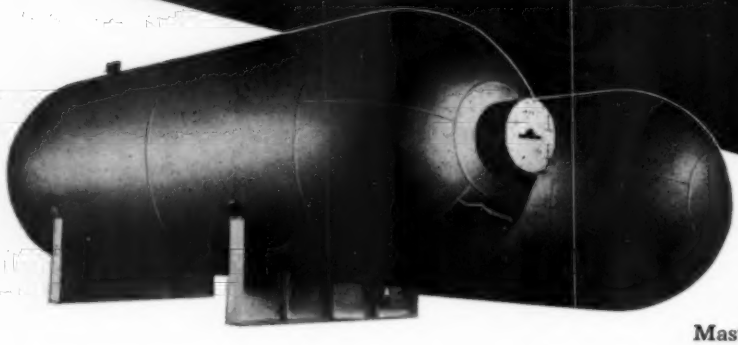
Aerosols in Evaporation Study

An aerosol was one of the chief means of dispersing an evaporation retardant used to reduce evaporation of water sources in a study recently completed in the Southwest. The method was reported Sept. 10 in a "Progress Report on Water Evaporation Control Research" delivered to the Arkansas-Red-White River Basins Inter-Agency Committee Meeting in Santa Fe by Robert R. Cruse, of the Southwest Research Institute, and Charles L. Shrewsbury, of the Southwest Agricultural Institute.

The specific study involved a film which was applied on the ponds of four ranches in Webb County, Texas. The study utilized a solution of hexadecanol (Aquasave No. 2, Arista) in ethanol in a pressurized aerosol spray using propellant 12. The chemical (presumably in a very large-size aerosol container) was sprayed in varying quantities depending on wind direction and amount of wind.

The report indicated that the aero-

PROPELLANT PRESSURE VESSELS of all sizes



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The December Issue of Aerosol Age

Goes to the CSMA Convention at the Mayflower Hotel, Washington, D.C., Dec. 7-9

You can go too — with an advertisement in this important convention issue.

★ *At Least* 500 *Extra Circulation to Industry Leaders Attending This Show*

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sol method resulted in a saving of 18% over a period of approximately three months. Most of the study was conducted during the arid summer months, when water evaporation is a major problem in the Southwest.

•

Liquid Carbonic Names Elliott

Edward Elliott, Jr., has been made manager of industrial-medical sales for the Liquid Carbonic Division of General Dynamics Corp., Chicago, producer of compressed gas propellants for the pressurized

Edward Elliott, Jr.

packaging field. His appointment comes as a result of the expanded activities of Liquid Carbonic since the acquisition last June of Hench Industrial-Medical Gas Enterprises.

Before joining Liquid Carbonic, he was a vice-president of the Cambridge Corp., then a division of Carrier Corp. Prior to this association, Mr. Elliott spent 21 years with the Pressed Steel Tank Co., Milwaukee, as division sales manager.

He is a graduate of Purdue University. His affiliations include membership in ASME, American Rocket Society, Gyro International, Air Force Association, Phi Delta Theta fraternity. He is also well known as a college football referee and as an official in the Rose Bowl classic.

•

O-I Sponsors Research Study

A senior post-doctoral research fellowship at the University of Cambridge has been announced by Owens-Illinois Glass Co., Toledo. The fellowship will provide $4,500 a year in stipend and materials for each of three years.

Professor Philip Bowden, director of the university's Research Laboratory for the Physics and Chemistry of Solids, will administer the fellowship. The research fellow will devote his time to research in one of three possible areas; friction of glass against metal at elevated temperatures, crystallization phenomenon at glass surfaces, or changes in surface structures due to changing environment of the glass sample.

The Cambridge fellowship is the third project sponsored by Owens-Illinois in England. The others are at the University of Sheffield and the Fulmer Research Institute at Stoke Poges.

Packaging Machinery Makers See Drugs, Foods, Growing

THE pharmaceutical, frozen food, and cosmetic industries in the next 12 months will be responsible for a surge of orders for packaging machinery and related materials. This forecast was made last month by companies exhibiting in the Packaging Machinery Manufacturers Institute Show.

The 155 exhibitors in the PMMI Show to be held in New York November 17-20 were asked this question:—"During the next 12 months, which industries do you believe will surge ahead more rapidly than other industries in buying the machinery or materials you produce?" According to the administration of the show, the pharmaceutical industry was the popular favorite for an upswing in purchases of packaging machinery. Next likely to step up orders for machinery and materials is the frozen food producer and running a close third is the cosmetic industry.

In answer to a second question to the PMMI Show exhibiting companies:—"What is likely to be the most outstanding development in packaging machinery—or packaging materials—between now and 1964?" more exhibitors said "high speeds" than anyother response. They also predicted great strides towards fuller automation, and new shelf packages.

High in prediction was the increased use and application of polyethylene. Numerous exhibitors reported that in their opinion the most outstanding industry development would be improved precision design in packaging machinery.

Hundreds of units of packaging machinery, plus scores of types of packaging materials, will be seen Nov. 17 through 20 in the New York Coliseum during the Packaging Machinery Manufacturers Institute Show. From Nov. 16-18 a packaging forum will be held by the Packaging Institute.

For those interested in
Carbon Dioxide Propelling of products
from a pressurized can, we offer

SNOW-MAN
DRY ICE MAKER

with adapter for making pellets ½" diameter x ⅝" long.

Two of these pellets in an empty 6 oz. can will create a pressure of approximately 80 lbs. Two of these pellets in a similar can half filled with water will create the same pressure due to the water absorbing some of the CO_2.
For experimental work with CO_2, the SNOW-MAN is a most valuable aid.
The SNOW-MAN may also be used to produce dry ice with Aerosol cold filling. The dry ice is used in conjunction with coils of copper tube cooling the aerosol propellants well below their boiling point so they can be handled in open containers.

PRICES
$86.— 3 oz. Size * 12 oz. Size..—$130.—
20.— Pellet Making Attachment — 20.—
$106. .....TOTAL..... $150.

BUILDERS BP PRODUCTS
Division of
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108-110 WOOSTER STREET, NEW YORK 12, N. Y. • CAnal 6-5390

Aerosol Tech. Clinics

(From Page 22)

of filling lines, at least among custom packagers, is not especially promising because their versatility is their chief selling point; and any automation with equipment which would reduce this versatility would serve to negate the filler's chief appeal to his many customers.

Hydrocarbon propellants are not to be "fooled with," even in the laboratory, Mr. Osman warned. He said that for a hydrocarbon filling operation adequate ventilation, explosion-proof room and electrical controls, and installation of automatic detection devices would all be necessary. At one plant in which he worked, he explained, all these precautions still necessitated the occasional shut-down and evacuation of the filling area to check on suspicious build-up of the hydrocarbon vapors. Mr. Iannacone suggested special training of personnel, frequent fire drills, and prevention of movement of components or finished products in or out of the filling area during the packaging operation. Roy Ferry of Kartridg-Pak Co., moderator of the panel, suggested that employees be cautioned to wear clothing that would not generate static electricity.

The final question to the panel concerned setting up of food filling operations. Messr. Iannacone and Hart both declared that sanitation is the prime consideration, and Mr. Hart advised that local health officers (county and city) be consulted even before the line equipment is purchased.

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Push-button cans are actually 99 per cent steel, thin sheets of steel coated with sparkling tin. Bethlehem is a major supplier of quality tinplate to the nation's can manufacturers.
BETHLEHEM STEEL

This full-page four-color advertisement, pointing out the advantages of the aerosol package was seen by millions of people in the Oct. 26th issue of *Time*, the weekly newsmagazine. Advertiser is Bethlehem Steel, supplier of tinplate to can manufacturers.

225 Attend Chicago Aerosol Clinic

By H. H. Slawson

Chicago Correspondent

THE Chicago aerosol clinic of the CSMA drew more than 225 fillers, marketers, and others to the LaSalle Hotel for an intensive up-to-date survey and briefing on various aspects of aerosol filling operations. The highly concentrated program was climaxed by two spirited panel discussions on practical formulation problems and commercial filling methods.

The same sextet of authorities who presented papers at the New York clinic served as "instructors" in Chicago. These included R. A. Crane, DuPont (Industry History and Markets); F. A. Mina, Lodes Aerosol Consultants (Aerosol Principles); L. T. Flanner, General Chemical (Aerosol Propellants); J. J. Buchanan, (Continental Can Co. (Aerosol Containers); Walter C. Beard, Jr., Risdon (Aerosol Valves); and D. C. Geary, Union Carbide (Laboratory Operations). Due to the large number of "beginners" present (representing firms which have either just begun or are considering entry into the aerosol field), the subject matter was kept on a somewhat elementary and academic level. Much use was made of slides, charts, and other illustrative matter of the college classroom type.

A panel consisting of M. A. Johnsen, Peterson Filling & Packaging

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Co.; R. L. Rhodes, Real-Kill Co.; and S. J. Campbell, Continental Filling Co., handled questions on formulation. Another on commercial filling methods included R. G. Appenzeller, G. Barr & Co.; C. F. Kessler, Plast-Kote, Inc., and W. H. Walker, Fuller Products Co.

The first panel fielded the question "What factors are involved in formulating water-base aerosols?" with a reply that the selection of container, lining, valve, and active ingredients would all figure into the success of the formulation.

The problem of formulating conventional perfumes into aerosol form is a tricky one, the panel concluded. The most difficult problem is combination of product and propellant so that the product will not "go to pieces on the shelf within a month." Color change due to propellant-product reaction is another serious problem, and the panel suggested that one general guiding principle would be to "try it and see."

Other conclusions reached by the formulation panel included:

1. The gas chromatograph is becoming an increasingly important tool in the aerosol laboratory, especially for quality control, and it is also handy for identifying your competitor's formulations!

2. There is a growing trend toward the use of non-toxic paint pigments in aerosol paints, although conventional pigments are still being widely used.

3. New propellants may be in the offing, and possibly even new propellant systems.

THE panel on commercial filling methods devoted most of the brief time left to discussion of automation and safety. As had the panel in New York, the Chicago panel was of the opinion that automation is possible only up to a point, but a fully automated system would be impossible without some kind of blanket standardization of valves, containers, and caps. There is no such thing as a completely "push button" filling line, it was asserted, although such a line might be possible if one single product were to be handled.

One panelist cited the need for a mechanical can or bottle cleaner, which he said would reduce the cost of hand wiping operations. He also suggested a "reasonably priced" automatic weighing device. But he acknowledged that the problem was more within the realm of equipment manufacturer than the CSMA or any other trade association.

The panel pointed out that safety problems in the aerosol plant are similar to those in any other industrial plant, but that personnel training is especially important. Since safety authorities have stated that 87% of all accidents are the result of carelessness or improper operation of equipment, it was urged that the employers demand and insist that employees follow set safety instructions.★

•

Alpine Adds to Sales Staff

Alpine Aromatics, Inc., Metuchen, N. J. supplier of perfumes and essential oils, last month announced the appointment of Col. Thomas H. Davies as its Southern sales manager. From district headquarters in Athens, Tex., he will service Alpine's customers throughout the South.

Col. Thomas H. Davies

•

U.S.I. Appoints W. Kilmer

Walter J. Kilmer has been made manager of the Detroit Sales Division of the U. S. Industrial Chemicals Co. Division of National Distillers and Chemical Corp., New York. He succeeds Fred M. Henley, who retired.

Mr. Kilmer has been associated with U. S. I. for 25 years and prior to his new assignment was a sales representative at Buffalo, N. Y. Mr. Henley had been with the company since 1923.

•

Peerless Names Ad Agency

Peerless Tube Co., Bloomfield, N. J., manufacturer of aluminum aerosol containers, has named Carpenter-Proctor, Inc., Newark, N. J., its agency for national advertising. A new campaign will utilize four-color pages in packaging and user trade publications.

Film on Essential Oils

"Essential Oils of South America," a new film photographed by Dr. Ernest Guenther, vice-president and technical director of Fritzsche Bros., Inc., was previewed at a special cocktail party and dinner given Oct. 1 for some 500 guests at the Hotel New Yorker by Fritzsche Bros., New York.

Early in 1959, Dr. Guenther left New York on a six-country trip of South America, during which he filmed cultivation, harvesting, and production of essential oils. In three months he covered growing centers for peppermint, menthol, lemongrass and citronella production in the Argentine; petitgrain and guaiac wood in Paraguay; and in Brazil, *Mentha arvensis*, menthol, eucalyptus, citronella, vetiver, palmarosa, citrus and bois de rose. A colorful recording of this trip is presented in the 16mm motion picture, providing pictorial coverage not only of those areas devoted to the production of essential oils, but of all the major points of scenic beauty encountered by Dr. Guenther on this 15,000 mile journey. Scenes such as aerial views of the Andes, street scenes of Buenos Aires, the Copacabana Beach and the Sugar Loaf are some of the pictorial highlights of this film.

Fritzsche Bros. is making the film available without charge to educational institutions, industrial, civic and religious organizations for group presentations.

•

Drug Store Sales Off

Sales of hair sprays, deodorant, and dentrifices to teenagers in drug stores fell off last year as this new market segment turned to other retail sources. This fact was revealed in the annual survey of teenage toiletry shopping habits by *Seventeen* magazine.

The survey indicated that although teenage girls still favor the drug store for their toiletry purchases, their loyalty slipped somewhat during 1958. For instance 64.9% of teenage girls favored drug stores as the source for hair spray purchases in 1957, but the percentage dropped to 57% in 1958. For deodorants, the figure fell from 60.3 to 56.8%, and for dentifrices from 53.2 to 43.2%.

EAST

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ATi

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Exclusively private label manufacturer of aerosol cosmetics, pharmaceuticals and chemical specialties.
Bridgeport 5, Conn. EDison 6-0174

Carbide Completes New Unit

Union Carbide Chemcials Co., a division of Union Carbide Corp., New York, last month announced completion of a final building of new research-development-engineering complex at South Charleston, W. Va. The new technical center includes a new engineering building plus research, development, and engineering departments of Union Carbide Chemicals, engineering department of Union Carbide Olefins Co., and the design and construction department. Also at the center work on resin research and development is being done by Union Carbide Plastics Co.

The scope of activity at the center ranges from theoretical studies on molecular structure and basic research in chemical reaction mechanisms, to pilot-scale production of new products and the subsequent engineering and design of commercial production facilities.

The technical center now includes three major buildings for the research, development, and engineering departments; two high-pressure laboratories with a total of 39 test cells; one chemical and two plastics/resins pilot plants; applications research laboratory; radiation laboratory; cafeteria; and supporting facilities.

With a gross total of 15 acres of floor space, a mail room handling 25,000 pieces of mail a day, a thousand-set telephone system, a cafeteria equipped to feed more than 2,200 researchers, and three libraries — the twelve buildings of the Technical Center form a nearly self-sufficient "city" for its 2,200 scientists, engineers, and supporting personnel.

•

DCAT Group Elects Huisking

William W. Huisking of Charles L. Huisking & Co., New York, has been elected president of the Drug, Chemical and Allied Trades Association. James Day of Dow Chemical Co. was elected vice president and William J. Schieffelin III of Schieffelin & Co. was elected treasurer.

•

Seeks Aerosol Agency

K. H. Flickenschildt, a manufacturers agent at 22 Schopenstehl, Hamburg 1, Germany, is seeking an agency for spray containers and perfume dispensers.

•

Norda Advances F. J. Rowse

Fred J. Rowse, a veteran of 21 years with the company, has been appointed a vice-president by Norda Essential Oil & Chemical Co., New York.

Editor's Mailbag

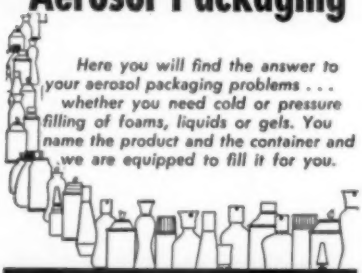
(*From Page* 14)

aerosol cans, we find that this problem has been solved by our research dept. We have discovered that a flowed-in gasket or a laid-in gasket will work equally well with our aluminum aerosol can and in recent tests no problems were found in so far as obtaining a perfect seal with either gasket in a normal clinching operation.

The second matter appeared in your column called, "Over the Transom." It was stated that one of the largest consumer gripes was the fact that metal aerosol cans

EAST

Aerosol Packaging



Here you will find the answer to your aerosol packaging problems . . . whether you need cold or pressure filling of foams, liquids or gels. You name the product and the container and we are equipped to fill it for you.

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left on damp surfaces, such as bathroom or kitchen sinks, left a decided rust ring which many customers found to be unsatisfactory. In the use of an aluminum can this problem is solved and the necessity for expensive lacquers and the use of chemicals or other protective devices (which increase the cost of the aerosol can) would be eliminated.

Irv Silkin
CROWN PLASTICS, INC.
Chicago, Ill.

•

Breck on European Visit

Edward J. Breck, president of John H. Breck Inc., Springfield, Mass., has returned to the U. S. after an extended European business trip. During his visit he conferred with distributors of his firm's hair care preparations in Great Britain, France and Switzerland. The major purpose of the meetings was a discussion of marketing and distribution of Breck Preparations and plans for future expansion for the company in European countries.

Aerosols in Review

(*From Page 37*)

ticle are the results of remarks by R. H. Shinn:

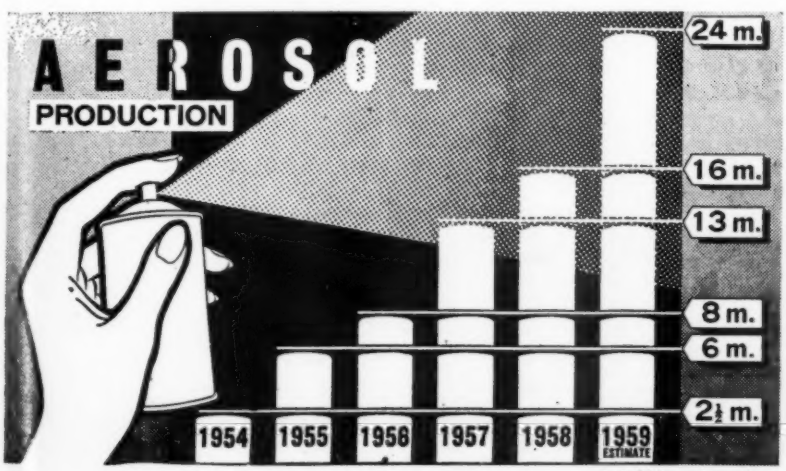
"Continuing efforts are being made to improve existing metal aerosol packages, according to a report by R. H. Shinn, Crown Cork & Seal Co. Metallurgically, investigation of possible uses of chemically-treated steels and type 'L' plate are being considered. A never ending search for new and better coating materials and for container interiors showing better continuity and reduced porosity, with constant objective of broadening product scope, are being pursued.

"Other areas of activity include development of diaphragm packaging to enable dispensation of extremely viscous products and separation of product and propellants, improvement in the esthetic appeal of container exterior by radically new coating systems and development of equipment to provide halftone decorations for drawn containers, the investigation of plastisol and organisol and use of film barriers to provide containers of complete continuity of interior film."

•

A POSSIBLE challenge to the acknowledged market supremacy of aerosol shaving creams could be a device recently introduced by the House for Men, Inc., Chicago producer of men's shaving products, for its "Blue Spark" shave cream, claims the October issue of *Consumer Packaging*. The new gimmick is a specially designed "applicator head" which doubles as a built-in massage device but which takes the price of the product to $1 for a four-and-a-half-ounce tube.

Consumer Packaging reports that "House for Men did not want to emulate other shaving cream manufacturers with an aerosol product; rather they set out to 'go them one better' with a convenience feature of a different sort—hoping, in passing, that this difference might serve as a selling tool itself." The report indicates that early sales may have fulfilled the hopes of the company's management.★



Daily Express, London

The Growth of the British Aerosol Market

A Correction

On page 53 of the August issue of *Aerosol Age*, there appears a story about the election of H. R. Shepherd, president of Aerosol Techniques, Inc., to the board of trustees of the Columbia University College of Pharmacy. The wording of the story suggests that Mr. Shepherd is also connected with other college aerosol laboratories—at St. John's and at the Philadelphia College of Pharmacy and Science. Actually, Mr. Shepherd's connection is with Columbia only, and he has no direct connection with the aerosol laboratories of the other colleges.

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LEGAL NOTICE

Statement of ownership, management, circulation, etc., required by the Act of Congress of August 24, 1912, as amended by the Acts of March 3, 1933, and July 2, 1946 (Title 39, United States Code, Section 233).

Of Aerosol Age, published monthly at New York, New York, for November 1, 1959.

1. That the names and addresses of publisher, editor, managing editor and business managers are: Publisher, Wayne E. Dorland, P. O. Box 31, Caldwell, N. J.; Editor, Donald A. Davis, P. O. Box 31, Caldwell, N. J.; Technical Editor, Eleanore Kanar, P. O. Box 31, Caldwell, N. J.; Business Manager, Ralph E. Dorland, P. O. Box 31, Caldwell, N. J.

2. The owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent of more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual member, must be given.) Wayne E. Dorland, P. O. Box 31, Caldwell, N. J.; Ralph E. Dorland, P. O. Box 31, Caldwell, N. J.; Eleanore T. Kanar, P. O. Box 31, Caldwell, N. J.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities are: (If none, so state) None.

4. Paragraphs 2 and 3 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner.

Signed—Donald A. Davis, Editor

Sworn to and subscribed before me this 16th day of October, 1959.

(Seal) David R. Tryon

(My commission expires May 11, 1964.)

Peet — Grady Method

(*From Page* 28)

perienced in collecting active flies, still up at the end of the exposure period, does not arise. On the other hand it was found that cages limit the flight movement and cause screening of the aerosol which is important when considering the flight-stimulating property of some insecticides. It is also difficult to make accurate and frequent knockdown counts of flies in cages suspended at different heights. The cages are difficult to cleanse, but the most serious criticism is the failure to obtain good replication of results and this last point led to the adoption of free flying flies for the technique.

"The technique is regarded as being entirely suitable for the needs of industry. It can be used for the development of new formulations and types of dispensers and for routine testing of commercial products. In a performance test with commercial products it is suggested that the time taken to knock down 50% should be established and that 100% mortality of flies should be obtained when the aerosol is discharged according to the maker's recommendations."★

U. S. Drug Firms

(*From Page* 32)

creased efforts by Britain to seek full or at least partial membership in the European Common Market plan. This could mean increased aerosol component and finished product commerce between Britain and the Continent, as well as stepped-up exchange of technical knowledge between British aerosol experts and those of the Common Market countries.

"Principal British aerosol commerce to date has been with the countries of Scandinavia, South Africa, the Middle East, and some of the Commonwealth nations," he pointed out. "The improved British dollar exchange position has loosened up British imports of aerosol components and filling equipment. Alpha-Colton and Kartridge Pak (Mojonnier) equipment has been coming in in substantial volume, and there has continued to be much aerosol equipment shipped from Switzerland and Germany.

"Valves from Risdon and a number of other leading U. S. companies continue to be imported, particularly for paints, perfumes and colognes, and pharmaceuticals. 'Pledge', for instance, employs a Risdon valve made in the U. S."

Returning to the subject of pharmaceuticals (in which he apparently thinks Great Britain is far ahead of the U. S.), Mr. Kirk revealed that there haven't been very many antibiotics packaged under pressure because the British medical profession seems to look with even more respect upon these materials than do U. S. doctors. However, as proof of the fact that some of the more conservative firms have accepted the aerosol, he reported that Moore's Medicinal Products, Ltd., Abendeen, Scotland, a leading European producer of asthmatic remedies, is currently bringing out an asthmatic aerosol spray with an oral adapter. To be called "Brovan", it will employ a U. S.-made Risdon valve with a 20 ml. bottle. He said that success of this product from such an important pharmaceutical house could herald the introduction of a whole range of orally administered products in Great Britain and possibly throughout Europe.

Mr. Kirk reported that the British Packaging Exposition, held Sept. 7-16, revealed new interest in the aerosol package. Every British aerosol supplier at the show reported new interest from technical people in a wide range of fields, particularly cosmetics, toilet goods, prarmaceuticals, and household specialties.★

IKI Co.

(*From Page* 25)

the pressure filling field since 1951. The company has filled 120 different products since it began operations in 1951, and its labor force has grown to ten.

According to the company's partners, the Edgerton location is a strategic one from a geographical standpoint. The town is located near rail and truck transportation arteries and is close to the geographic center of the country. These factors, plus advanced quality control practices and a sound knowledge of various propellants and filling techniques are counted on to extend the company's business to an even brighter future in the coming years.★

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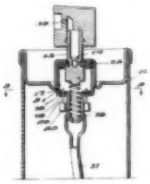
New Aerosol Patents

Listed below is a brief review of recent patents pertinent to the aerosol and related industries.

Complete copies of these patents may be obtained by writing to the Commissioner of Patents, U. S. Patent Office, Washington 25, D. C., and remitting 25 cents for each copy desired.

2,904,229. AEROSOL DISPENSERS AND LIKE PRESSURIZED PACKAGES. Issued Sept. 15 to Arthur J. Samuel, Pittsburgh, assignor to Gulf Research & Development Co., also in Pittsburgh.



An aerosol dispenser or like pressurized package comprising, in combination with a receptacle, an eduction tube extending into the bottom part of said receptacle, a manually operated discharge valve at the top of the receptacle having a body of stepped diameter within the receptacle and a laterally extending shoulder located between the portions thereof of large and small diameter, the said shoulder being provided with orifices, and gravity actuated valves associated with the orifices for covering the same by seating on said shoulder when the receptacle is upright but movable to uncover the orifices when the receptacle is inverted.

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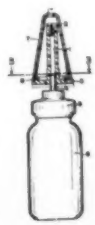
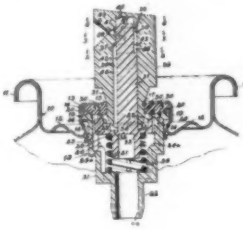
2,906,265. NASAL ADAPTOR FOR VALVED DISPENSER. Issued Sept. 29 to Abe O. Samuels, Bridgeport, assignor to Maryland Devices, Inc., a corporation of Maryland.



A nasal adaptor for a pressurized valved dispenser having a depressible valve stem comprising, a nozzle having a restricted orifice at one end, a base portion connected to said nozzle at its opposite end and adapted to sealingly engage said valve stem, said base portion extending laterally beyond said nozzle to provide a finger grip, and a detachable cover portion having openings at two ends, said cover portion surrounding said nozzle and engaging at one end said base portion and the other end extending beyond said orifice.

2,906,461. VALVE MECHANISM FOR DISPENSING APPARATUS. Issued Sept. 29 to Frank E. Bretz, Jr., Elmhurst, Ill., assignor to Delta Dynamics, Inc., River Grove, Ill.



A valve mechanism comprising a movable valve element, said element having a cup-shaped body and a stem extending therefrom, an actuator button rotatably embracing said stem, said stem and button having a passageway system extending from the cup of the valve element and through the button to the exterior thereof, one portion of said passageway system forming a groove in the valve body, another portion of the system forming spaced grooves extending circumferentially of the stem, and a lug on said button arranged for movement through one of said grooves during rotation of the button on the stem.

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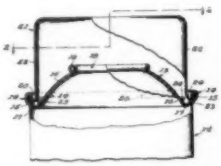
2,906,430. SPRAY CAN AND SNAP-ON CAP ASSEMBLY AND MANUFACTURE THEREOF. Issued Sept. 29 to John Henchert, River Forest, Ill., assignor to Continental Can Co., New York.



In a can structure, a round body having a side wall, a can end secured on the body by a fluid tight rolled seam including an inwardly facing upright chuck wall, said can end having an upwardly and inwardly extending domed portion merging outwardly into the chuck wall through a well rounded radius so that said domed portion, radius and chuck wall together provide an upwardly opening annular channel, and a round cap removably assembled on the can end and mounted over said domed portion and including a depending upright skirt having a tubular resilient rib at its lower extremity shaped to conform to the well rounded radius at the bottom of the channel and bottomed in said channel, a portion of said rib extending outwardly of the skirt and a portion of said rib extending inwardly of said skirt so that the skirt extends upwardly from the rib intermediately of the radial cross section of the rib, and said chuck wall having thereon a plurality of spaced inward deformations confined to the region of the seam between said radius and the upper extremity of the seam and dimensioned to slightly overlie the rib bottomed in the channel, permitting ready snapping on and off of the cap.

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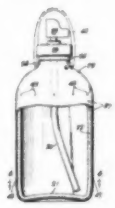
2,906,462. PRODUCT DISPENSING CONTAINER. Issued Sept. 29 to Joseph F. West, Millville, N. J., assignor to Wheaton Glass Co., Millville.



A composite container containing a product and a gaseous propellant for dispensing said product by pressure generated by said propellant, comprising an inner rigid frangible container having a discharge opening, and an outer container freely overlying substantially the entire exterior surface of said inner container in close conformity therewith and secured to said surface in pressure proof sealing engagement adjacent said discharge opening, said outer container being a continuous sheath of a synthetic resinous elastomeric elastically expansible material, expansible by the pressure released by said gaseous propellant upon explosive fracture of said inner container, said outer container having tensile and tear strengths to withstand the initial explosive force and when expanded having tensile and tear strengths to confine and retain said pressure and the fracture fragments of the inner container, and said outer container having at least one vent therein operable upon expansion of the outer container to gradually exhaust said pressure therefrom while still retaining therein the fracture fragments of said inner container as said outer container exhausts said pressure and retracts to substantially its original unexpanded condition.

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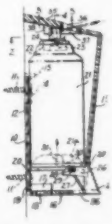
2,904,223. OPERATING PLUG FOR FRAGRANCE DISPENSER. Issued Sept. 15 to Richard W. Ryan, Brooklyn, N. Y.



In a device of the character described, in combination, a fragrance dispenser of the type including a hollow stem upon depres-

sion of which the contents of the dispenser are exuded, an operating plug having a bore engaging over said stem and a transverse discharge passage communicating with said bore for discharging the contents of said dispenser laterally, said plug being of generally rectangular configuration, a pair of stop flanges on opposite sides adjacent the edge of the side opposite the opening of the discharge passage, said flanges being parallel to said bore and extending in a plane perpendicular to the plane of said passage, a container for said dispenser, a wall mounting for said container, said container having a top with an opening therein, and an open rear portion, a pair of guide flanges on the underside of said top extending on opposite sides of said opening, said flanges being spaced apart a distance substantially equal to the width of said plug, shoulders formed on the confronting sides of said flanges, the spacing of said guide flanges beyond said shoulders being of a width to accommodate said stop flanges, abutment of said stop flanges with said shoulders insuring proper alignment of said passageway, said plug being so dimensioned as to preclude insertion beyond said shoulders if inserted sidewise or in reversed position, whereby upon such sidewise or reversed insertion, said dispenser will project from the open rear end of said container to preclude mounting of the same on said wall mounting.

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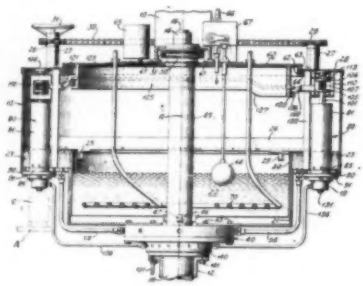
2,904,221. MACHINE FOR DISPENSING LIQUIDS INTO CONTAINERS. Issued Sept. 15 to Clarence F. Carter, Danville, Ill.



A rotary multistation liquid filling machine comprising a tank mounted for rotation about a vertical axis, said tank having a cover including means hermetically sealing the tank and excluding moisture to avoid contamination of the contents of the tank, a vertically movable wall member within said tank forming a weir between a main liquid reservoir and an annular liquid compartment in said tank, pump means for supplying liquid from said reservoir to said compartment to overflow said wall member and thereby provide a predetermined liquid level in said compartment, a plurality of liquid dispensing units mounted in said compartment to provide liquid dispensing nozzles arranged in a circle around the axis of rotation, each unit including a measuring chamber provided with a liquid inlet and a liquid outlet, a dispensing nozzle communicating with said outlet, a valve assembly mounted to selectively control liquid flow into and out of said chamber including an inlet valve member and an inlet valve seat to control said liquid inlet and an outlet valve member and an outlet valve seat to control said liquid outlet, said inlet valve member moving downwardly to close said inlet and said outlet valve member moving upwardly to close said outlet, spring means cooperating with said valve members urging said members to close said inlet and said outlet, and valve assembly actuating means operable in response to rotary movement of said tank to sequentially open and close said inlet by raising said inlet valve member and open and close said outlet by lowering said outlet valve member and thereafter raising said outlet valve member to dispense a premeasured volume of liquid into the container being filled.

Trade Mark Applications

Applications for registration of the following trademarks were published in recent issues of the *Official Gazette* of the U. S. Patent Office. In not all cases are there strictly aerosol trademarks, however, many of the products listed below come within the category of those for which a possible future use in aerosols is foreseen.

FLEACIDE, for veterinary preparation—namely, a parasiticide for external application to animals for killing and/or repelling external parasites. Filed Sept. 25, 1958 by Curts Laboratories, Inc., Kansas City, Kans. claiming first use Oct. 2, 1956.

TAN-SECT, for suntan and insect repellent lotion. Filed Nov. 20, 1958 by Stephen G. Halos, d.b.a. Laboratory Products, Miami, reporting first use May 25 of same year.

PRO-STYL, for hair spray and other hair products. Filed Dec. 2 by George C. Turek, d.b.a. Pro-Styl Beauty Products, Beverly Hills, Calif., with first use Oct. 31, 1958.

HAIR ARRANGER, for hair grooming preparation. Filed June 19, 1958 by Boyer International Laboratories, Inc., Chicago, reporting first use 1947.

DIGENE, for preparation for treatment and alleviation of diaper rash. Filed Feb. 12 by American Home Products Corp., d.b.a. Whitehall Laboratories, New York, listing first use as Dec. 15, 1958.

BREATHEASY, for kit consisting of a refillable nebulizer, together with an epinephrine solution, for use in the inhalation treatment of asthma. Filed July 26, 1957 by Pascal Co., Seattle, with first use Sept. 21, 1934.

EVANS-CROWDER, for atomizers for cosmetic, medicinal and toilet preparations. Filed Nov. 4, 1957 by Evans-Crowder Co., South Lyon, Mich., reporting first use March 23, 1956.

ZEP-O-FRESH, for room deodorant, and air freshener, and ZEP-O-KILL, for insecticide. Both filed Dec. 31, 1958 by Zep Manufacturing Corp., Atlanta, claiming first use for room deodorant on March 1955 and for insecticide March 1954.

(*Continued on Page* 68)

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Hoejenbos Marks Anniversary

Dr. Leendert Hoejenbos, managing director of Polak's Frutal Works, N. V., Amersfoort (Holland), associated company of Polak's Frutal Works, Inc., Middletown, N. Y., recently celebrated his 40th year with the company. To observe this anniversary, his associates tendered him a dinner, on which occasion Jacob Polak, one of the co-founders and Chairman of the Board, presented him with a pair of antique silver chalices.

In 1931, when Henry Polak, brother of Jacob Polak and co-founder of the company, died, Mr. Hoejenbos took over the technical management of the firm. In 1940, at the outbreak of World War II, when the Polak family left for the United States, he shouldered the overall management of the company under very trying conditions. Dr. Hoejenbos has published a number of articles on flavoring and aromatic materials.

Onyx Appoints Clinton Lee

Clinton W. Lee has been appointed New England district manager for the Onyx Oil & Chemical Co., producer of finishes, chemical specialties, surface active agents, and other industrial chemical compounds. He will be in charge of Onyx's sales and service office at 6 Beacon Street in Boston, which serves Onyx customers in New England and the Eastern half of New York State.

For the past ten years, Mr. Lee has been in New England as district manager for Shell Chemical Corp. He is a graduate of the University of Alabama and received his M.S. from Roosevelt University, Chicago.

•

Bankruptcy Hearings Set

The Bankruptcy Court of the United States District Court in Bridgeport will hold a hearing Nov. 2 in the bankruptcy suit of L & H Plastics, Inc., Bridgeport, manufacturers of plastic aerosol caps.

One company's solution as to how best to catalog valve actuators, dip tubes, and orifices from the many aerosol valve manufacturers is this "library" of valves in the laboratory of G. Barr & Co., Chicago custom filler. According to Morris J. Root, technical director at Barr, the device facilitates determination of which combination of valve parts will combine for most effective dispensing of a particular product.

•

Carbide to Build Research Ctr.

Construction will begin on a new building to house the Union Carbide Research Institute, a special research activity of Union Carbide Corp., New York. To be located at Carbide's 280-acre property near Tarrytown, N. Y., it is expected to be completed by the latter part of 1960.

The research institute was formed in 1956 in order to extend basic research projects being carried on in Carbide's research laboratories. Programs currently underway include such areas of study as the structure of plastics and research on biochemicals.

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Trade Marks

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HY-TESS, for moth proofing agent. Filed April 16, 1958 by E. F. Drew & Co., New York, claiming first use March 27 of same year.

TILFORD STAY PUT, for hair sprays and lipsticks. Filed March 3, 1958 by Park & Tilford, d.b.a. Tilford Toiletries, New York, listing June 3, 1953 as first use date.

NU-KOTE, for spray coating for fabrics or rubber. Filed Sept. 26, 1958 by Pressure Pak, Inc., West Palm Beach, Fla., assignee of National Chemical Laboratories, Inc., West Palm Beach, claiming first use Dec. 1 of previous year.

SYNODYNE, for nasal spray. Filed Oct. 17, 1958 by Synodyne Corp., Memphis, listing first use as May 1 of same year.

BURN-QUEL, for sprayable liquid preparation for the relief of burns. Filed Dec. 23, 1957 by A. E. Halperin Co., Boston, listing first use March 7 of same year.

VANAY, for fungicidal preparation in topical dosage form. Filed April 20 of last year by American Home Products Corp., d.b.a. Ayerst Laboratories, New York, with first use April 16 of same year.

3 WAY, for hair spray. Filed Jan. 22, 1958 by Shulton, Inc., Clifton, N. J., listing first use as Jan. 10, 1958.

FRIG-I-GAS, for dichlorodifluoromethane used as a refrigerant. Filed Sept. 12, 1957 by DeMert & Dougherty, Chicago, listing first use on or about Aug. 12, 1957.

JETSTREAM, for pre-shave lotion for electric shaving. Filed Oct. 8, 1958 by Yardley of London, Inc., d.b.a. Yardley, Union City, N. J., reporting first use Sept. 11, 1958.

BRIGHT FUTURE, for hair lightener. Filed Feb. 18 by Richard Hudnut, Morris Plains, N. J., claiming first use April 18 of last year.

AMCHEM, for chemicals for the production of decorative and protective coatings on metal surfaces. Filed March 23 by Amchem Products, Inc., Ambler, Pa., claiming fisrt use May 23, 1958.

MYSTIC MIST, for silicone fabric spray to render furniture, fabrics, wallpaper, clothes water repellent and to resist stains. Filed Feb. 18 by Dumas Milner Corp., Jackson, Miss., claiming first use Jan. 31.

ALTAFUR, for preparation for the treatment of bacterial infections in humans and animals. Filed May 21 by The Norwich Pharmacal Co., d.b.a. Eaton Laboratories, Norwich, N. Y., reporting first use May 7.

BEAUTIFUL CROWN, for hair dressing. Filed March 15, 1957 by A. M. Hollingsworth, d.b.a. Hollingsworth Products Co., Fayetteville, N. C., with first use reported as May 8, 1950.

MEDI-BAND, for medicated spray bandage. Filed March 17 by Purepac Corp., New York, reporting first use March 2.

CHARG-A-CAN, for disposable metallic container filled with a refrigerant. Filed Dec. 1, 1958 by American Potash & Chemical Corp., Los Angeles, Claiming first use Feb. 1958.

RING-AWAY, for aerosol packaged enamel, porcelain, and tile cleaner. Filed Nov. 12, 1958 by General Aerosols, Inc., Shelton, Conn., assignee of Reed Research Corp., Shelton, with first use claimed as Sept. 24, 1958.

ONLY ONCE, for deodorant for personal use. Filed Feb. 16, by Colgate-Palmolive Co., New York, reporting first use as Dec. 9, 1958.

MIRACLE, for moth preventive preparations, toilet bowl deodorants, household deodorants, and air deodorants. Filed Jan. 17 by The Sterling Co., St. Louis, giving first use on or about March 15, 1932.

SUNDI-WHIP, for liquid vegetable derived product in a pressurized container which dispenses the product in a whipped form for use as a topping for desserts, salads, and the like. Filed April 9, 1958 by Rich Products Corp., Buffalo, giving Feb. 11, 1953 as date of first use.

NU-VU, for anti-fog liquid applicable to glass surfaces. Filed April 30 by Morley-Fletcher, Ltd., New York, reporting first use March 16.

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OVER THE TRANSOM

REVLON, leading aerosol marketer, came under heavy fire late last month for its role as a sponsor in the now defunct television quiz programs. Chief blast came from Philip Cortney, president of Coty, Inc., rival cosmetic marketing firm, in a full-page advertisement in the *New York Times* and an address to the Sales Executives Club on Oct. 28. He called on the sponsors and networks to donate their "ill gotten gains" as "conscience money" to various charities, and also demanded that the sponsors be called before the Congressional subcommittee currently investigating rigged television quiz programs. Mr. Cortney criticized Revlon for bringing heavy pressure to bear on the Sales Executives Club to cancel the luncheon at which he was scheduled to speak.

Charles Revson, president of Revlon, also came under fire from John Crosby, highly respected television critic of the *N.Y. Herald-Tribune* for "usurping the air waves" in sponsorship of "The Big Party". Charles Revson, Mr. Crosby charged, is running the show "with all the tact of a bull elephant . . . Never in all the history of commerce have artists had the hot breath of manufacturers so hot on their necks."

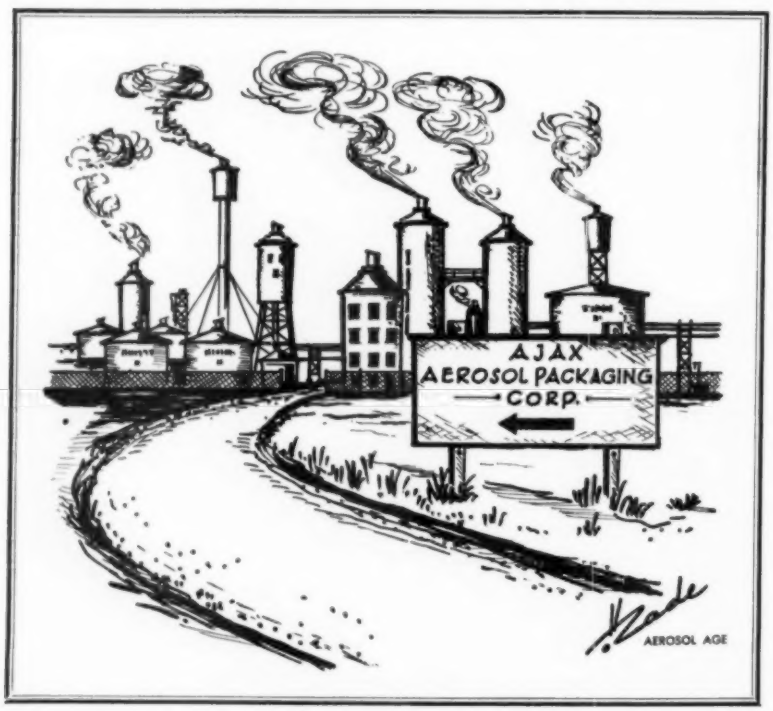
"Top Wip", Reddi-Wip's low-calorie aerated topping, will be sold in Canada this month under the stimulus of a special premium offer. Two pretty antique brass oil lamps will be offered to the buyer at $1 plus the "Top-Wip" can collar.

* * *

From a regional English newspaper (*The Windsor, Slough, & Eton Express*) we notice a recent story telling how a local public health officer distributes aerosols among villagers to help fight against a heavy fly infestation. This type of approach, say through the county agricultural agents in the U. S., would be a good way to educate the farmer to the advantages of aerosols. And the government, which pays the freight in our version of the welfare state, could pick up this tab too.

* * *

Speaking of education, the people in four Southern New Jersey counties have been indoctrinated to the advantages of aerosol insecticides and insect repellents the hard way this year. A serious outbreak of equine encephalitis, borne by mosquitoes, has already caused 20 deaths. In addition to ground and aerial spraying by county and state authorities, household insecticides and insect repellents are being widely used.



Newspapers during the month of October carried two brief news stories that could portend the opening up of new product vistas for the aerosol industry. *The New York Times* for Oct. 20, for instance, had a news story on installation of new luggage lockers (in New York's Grand Central Terminal), which will be equipped with a deodorant device which will be actuated each time the locker is emptied. W. Richard May, president of Mercury International, the company installing the units, told *Aerosol Age* that the exact deodorant device has not yet been determined, but that aerosols are one major possibility. On Oct. 19, the Associated Press reported that designer Paul R. Williams of Los Angeles told the National Society of Interior Designers that homes in the future will have a closed circulating air system with a perfumed metering device to "condition" the air for special occasions.

* * *

The Surgical Products Division of American Cyanamid Co., which had been approaching the whole aerosol idea with extreme caution for the past few years, has just introduced Achomycin chlortetracycline in spray powder form for topical use. Called "Achrosurgic Topical Spray Powder" the product is being nationally marketed this month. Another division of Cyanamid, Lederle Laboratories, also is developing aerosol products at a quicker rate these days.

* * *

Fair trade legislation proponents, stymied by lack of Congressional action during the last session, are dunning home-state Congressmen (most of whom are home on holidays) in hopes of action on the measure at the session beginning in January. These proponents obviously hope, through sheer organizational weight, to overcome the heavy opposition from government leaders and consumer groups.

* * *

A. O. Samuels, founder of Connecticut Chemical Research Co. and retired executive of B. T. Babbitt, finds it hard to forget his active interest in the aerosol industry, as will be seen by the "Aerosol Patents" section on page 65. Mr. Samuels' chief occupation now is that of an executive in the hotel business in the Bridgeport area.